



| <b>PL: DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH nr: 61898_1-2</b><br><b>EN: DECLARATION OF PERFORMANCE no:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | System oceny i weryfikacji stałości właściwości użytkowych wyrobu:<br>Assessment and verification of constancy of performance: |                                                                                   |                                                                                                                                                                                                                | 3                | 2016-10-07                     |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |  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| Wprowadzamy do obrotu wyrób do stosowania w budownictwie i pracach budowlanych zgodnie z wymogami normy:<br>The product is being entered for use in buildings and construction works under requirements of standard:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| <b>VSG 66,2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| <table border="1"> <thead> <tr> <th>Właściwości<br/>Characteristics</th> <th>Norma<br/>Standard</th> <th>Jednostka<br/>Unit of meas.</th> <th>Symbol</th> <th>Wartość<br/>Value</th> </tr> </thead> <tbody> <tr> <td>Odporność na ogień<br/>Resistance to fire</td> <td>EN-13501-2</td> <td>-</td> <td></td> <td>NPD</td> </tr> <tr> <td>Reakcja na ogień<br/>Reaction to fire</td> <td>EN-13501-1</td> <td>-</td> <td></td> <td>NPD</td> </tr> <tr> <td>Działanie ognia zewnętrznego<br/>Behaviour of external fire</td> <td>-</td> <td>-</td> <td></td> <td>NPD</td> </tr> <tr> <td>Odporność na uderzenie pocisku<br/>Bullet resistance</td> <td>EN 1063</td> <td>-</td> <td></td> <td>NPD</td> </tr> <tr> <td>Odporność na siłę eksplozji<br/>Resistance to explosion</td> <td>EN 13541</td> <td>-</td> <td></td> <td>NPD</td> </tr> <tr> <td>Odporność na włamanie<br/>Resistance to burglary</td> <td>EN 356</td> <td>-</td> <td></td> <td>P2A</td> </tr> <tr> <td>Odporność na uderzenie wahadłem<br/>Resistance to pendulum body impact</td> <td>EN 12600</td> <td>-</td> <td></td> <td>1B1</td> </tr> <tr> <td>Odporność na nagłe zmiany temperatury i różnice temperatur<br/>Resistance to sudden temperature change and temperature differentials</td> <td>EN 572</td> <td>°K</td> <td></td> <td>40</td> </tr> <tr> <td>Odporność na siłę wiatru, napór śniegu oraz stałe i przyłożone obciążenie<br/>Resistance to wind, snow, permanent or imposed load</td> <td>-</td> <td>mm</td> <td></td> <td>12</td> </tr> <tr> <td>Izolacyjność akustyczna od dźwięków powietrznych<br/>Direct airborne sound reduction</td> <td>EN12758</td> <td>dB</td> <td>Rw(C; C<sub>tr</sub>)</td> <td>37(-1;-3)</td> </tr> <tr> <td>Współczynnik przenikania ciepła<br/>Thermal transmittance factor</td> <td>EN 673</td> <td>W/(m<sup>2</sup>·K)</td> <td>U<sub>g</sub></td> <td>5,5</td> </tr> <tr> <td>Współczynnik przepuszczalności światła<br/>Light transmittance factor</td> <td>EN 410</td> <td>%</td> <td>L<sub>T,TV</sub></td> <td>88</td> </tr> <tr> <td>Współczynnik odbicia światła-zew./wew.<br/>Light reflectance factor-out/in</td> <td>EN 410</td> <td>%</td> <td>LR, ρ<sub>v</sub>/LR', ρ'<sub>v</sub></td> <td>8/8</td> </tr> <tr> <td>Współczynnik przepuszczalności bezpośredniej promieniowania słonecznego<br/>Solar direct transmittance factor</td> <td>EN 410</td> <td>%</td> <td>TE, τ<sub>e</sub>, ET</td> <td>73</td> </tr> <tr> <td>Współczynnik odbicia bezpośredniego promieniowania słonecznego<br/>Solar direct reflectance factor</td> <td>EN 410</td> <td>%</td> <td>E<sub>Re</sub>, ρ<sub>e</sub>, E<sub>R</sub></td> <td>7</td> </tr> <tr> <td>Współczynnik całkowitej przepuszczalności energii promieniowania słonecznego<br/>Total solar energy transmittance factor</td> <td>EN 410</td> <td>%</td> <td>g</td> <td>77</td> </tr> </tbody> </table> |                                                                                                                                |                                                                                   |                                                                                                                                                                                                                |                  | Właściwości<br>Characteristics | Norma<br>Standard | Jednostka<br>Unit of meas. | Symbol | Wartość<br>Value | Odporność na ogień<br>Resistance to fire | EN-13501-2 | - |  | NPD | Reakcja na ogień<br>Reaction to fire | EN-13501-1 | - |  | NPD | Działanie ognia zewnętrznego<br>Behaviour of external fire | - | - |  | NPD | Odporność na uderzenie pocisku<br>Bullet resistance | EN 1063 | - |  | NPD | Odporność na siłę eksplozji<br>Resistance to explosion | EN 13541 | - |  | NPD | Odporność na włamanie<br>Resistance to burglary | EN 356 | - |  | P2A | Odporność na uderzenie wahadłem<br>Resistance to pendulum body impact | EN 12600 | - |  | 1B1 | Odporność na nagłe zmiany temperatury i różnice temperatur<br>Resistance to sudden temperature change and temperature differentials | EN 572 | °K |  | 40 | Odporność na siłę wiatru, napór śniegu oraz stałe i przyłożone obciążenie<br>Resistance to wind, snow, permanent or imposed load | - | mm |  | 12 | Izolacyjność akustyczna od dźwięków powietrznych<br>Direct airborne sound reduction | EN12758 | dB | Rw(C; C <sub>tr</sub> ) | 37(-1;-3) | Współczynnik przenikania ciepła<br>Thermal transmittance factor | EN 673 | W/(m <sup>2</sup> ·K) | U <sub>g</sub> | 5,5 | Współczynnik przepuszczalności światła<br>Light transmittance factor | EN 410 | % | L <sub>T,TV</sub> | 88 | Współczynnik odbicia światła-zew./wew.<br>Light reflectance factor-out/in | EN 410 | % | LR, ρ <sub>v</sub> /LR', ρ' <sub>v</sub> | 8/8 | Współczynnik przepuszczalności bezpośredniej promieniowania słonecznego<br>Solar direct transmittance factor | EN 410 | % | TE, τ <sub>e</sub> , ET | 73 | Współczynnik odbicia bezpośredniego promieniowania słonecznego<br>Solar direct reflectance factor | EN 410 | % | E <sub>Re</sub> , ρ <sub>e</sub> , E <sub>R</sub> | 7 | Współczynnik całkowitej przepuszczalności energii promieniowania słonecznego<br>Total solar energy transmittance factor | EN 410 | % | g | 77 |
| Właściwości<br>Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Norma<br>Standard                                                                                                              | Jednostka<br>Unit of meas.                                                        | Symbol                                                                                                                                                                                                         | Wartość<br>Value |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |  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| Odporność na ogień<br>Resistance to fire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EN-13501-2                                                                                                                     | -                                                                                 |                                                                                                                                                                                                                | NPD              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Reakcja na ogień<br>Reaction to fire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | EN-13501-1                                                                                                                     | -                                                                                 |                                                                                                                                                                                                                | NPD              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Działanie ognia zewnętrznego<br>Behaviour of external fire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                                                                                                                              | -                                                                                 |                                                                                                                                                                                                                | NPD              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Odporność na uderzenie pocisku<br>Bullet resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | EN 1063                                                                                                                        | -                                                                                 |                                                                                                                                                                                                                | NPD              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Odporność na siłę eksplozji<br>Resistance to explosion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EN 13541                                                                                                                       | -                                                                                 |                                                                                                                                                                                                                | NPD              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Odporność na włamanie<br>Resistance to burglary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EN 356                                                                                                                         | -                                                                                 |                                                                                                                                                                                                                | P2A              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Odporność na uderzenie wahadłem<br>Resistance to pendulum body impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | EN 12600                                                                                                                       | -                                                                                 |                                                                                                                                                                                                                | 1B1              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Odporność na nagłe zmiany temperatury i różnice temperatur<br>Resistance to sudden temperature change and temperature differentials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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                                                                                                                        |        |   |   |    |
| Odporność na siłę wiatru, napór śniegu oraz stałe i przyłożone obciążenie<br>Resistance to wind, snow, permanent or imposed load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                                                                                                                              | mm                                                                                |                                                                                                                                                                                                                | 12               |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Izolacyjność akustyczna od dźwięków powietrznych<br>Direct airborne sound reduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | EN12758                                                                                                                        | dB                                                                                | Rw(C; C <sub>tr</sub> )                                                                                                                                                                                        | 37(-1;-3)        |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Współczynnik przenikania ciepła<br>Thermal transmittance factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EN 673                                                                                                                         | W/(m <sup>2</sup> ·K)                                                             | U <sub>g</sub>                                                                                                                                                                                                 | 5,5              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Współczynnik przepuszczalności światła<br>Light transmittance factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | EN 410                                                                                                                         | %                                                                                 | L <sub>T,TV</sub>                                                                                                                                                                                              | 88               |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Współczynnik odbicia światła-zew./wew.<br>Light reflectance factor-out/in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EN 410                                                                                                                         | %                                                                                 | LR, ρ <sub>v</sub> /LR', ρ' <sub>v</sub>                                                                                                                                                                       | 8/8              |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Współczynnik przepuszczalności bezpośredniej promieniowania słonecznego<br>Solar direct transmittance factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EN 410                                                                                                                         | %                                                                                 | TE, τ <sub>e</sub> , ET                                                                                                                                                                                        | 73               |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |        |    |  |    |                                                                                                                                  |   |    |  |    |                                                                                     |         |    |                         |           |                                                                 |        |                       |                |     |                                                                      |        |   |                   |    |                                                                           |        |   |                                          |     |                                                                                                              |        |   |                         |    |                                                                                                   |        |   |                                                   |   |                                                                                                                         |        |   |   |    |
| Współczynnik odbicia bezpośredniego promieniowania słonecznego<br>Solar direct reflectance factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | EN 410                                                                                                                         | %                                                                                 | E <sub>Re</sub> , ρ <sub>e</sub> , E <sub>R</sub>                                                                                                                                                              | 7                |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                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  |   |                                                                                                                         |        |   |   |    |
| Współczynnik całkowitej przepuszczalności energii promieniowania słonecznego<br>Total solar energy transmittance factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EN 410                                                                                                                         | %                                                                                 | g                                                                                                                                                                                                              | 77               |                                |                   |                            |        |                  |                                          |            |   |  |     |                                      |            |   |  |     |                                                            |   |   |  |     |                                                     |         |   |  |     |                                                        |          |   |  |     |                                                 |        |   |  |     |                                                                       |          |   |  |     |                                                                                                                                     |  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                                                                                                                        |        |   |   |    |

NPD-właściwość nie oznaczona. NPD-No performance determined.

Jeżeli pojawiają się dwie lub więcej wartości oznacza to, że pierwsza wartość dotyczy pierwszej szyby, druga drugiej itd.  
 If there are two or more values, this means that the first value refers to the first pane, the second value to the second pane, etc.

Potwierdzenie wykonania HST-Heat Soak Test, rodzaju ramki i zespolenia z silikonem UV są podane w dokumentach zakupu.  
 Confirmation of the HST-Heat Soak Test, types of spacer bar and IGU with silicone UV in the documents of purchase.

Współczynnik przenikania ciepła U<sub>g</sub> dotyczy szklenia pionowego, bez szprosów i dekoracji na szkle.  
 Heat transfer coefficient U<sub>g</sub> refers to vertical glazing and does not consider the influence of Georgian bars.

SKRÓTY: VSG-laminat; ESG-hartowanie; TVG-półhartowane; HST-test Heat-Soak; Ar-Argon; Kr-Krypton; Emalit, Sitodruk, Nadruk-dekoracja farbą ceramiczną na szkle; SI-folia akustyczna.

DESCRIPTION: VSG-laminated glass; ESG-toughened glass; TVG-semi-toughened glass; HST-Heat-Soak Tested; Ar-Argon; Kr-Krypton; Emalit-enameled glass; Sitodruk-silk-screen printing; Nadruk-digital silk-screen printing; SI-acoustic foil.

GLAS-TECH SA  
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 Witold Staniewicz