

**DECLARATION OF PERFORMANCE**

No. 23/2021

1. Unique identification code of the product-type:

**Gränges\_Konin\_5182**

2. Intended use or uses:

**Intended for internal and external loaded construction elements of buildings.**

3. Manufacturer:

**Gränges Konin S.A., Bolesława Prusa 2 Street, 00-493 Warsaw, Poland**
**Correspondence address: Hutnicza 1 Street, 62-510 Konin, Poland**

4. System or systems of assessment and verification of constancy of performance:

**System 2+**

5. Harmonized standard:

**EN 15088: 2005**

Notified body/ies:

**Research and Certification Department „ZETOM” prof. F. Stauba in Katowice sp. z o.o.,**
**Notified Body number 1436**

6. Declared performance: Sheet, plate and strip aluminum alloy EN AW-5182 cold rolled

Essential characteristics	Performance						Harmonized technical specification	
Dimensional tolerances IDT EN 485-4	Thickness tolerances						EN 15088:2005	
	Specified thickness [mm]		Thickness tolerances [mm]					
			Up to and including 1000mm	Over 1000mm up to and including 1250mm	Over 1250mm up to and including 1600mm	Over 1600mm up to and including 2000mm		
	Over	Up to and including	mm	mm	mm	mm		
	0,20	0,4	±0,02	±0,04	±0,05	-		
	0,4	0,5	±0,03	±0,04	±0,05	±0,06		
	0,5	0,6	±0,03	±0,05	±0,06	±0,07		
	0,6	0,8	±0,03	±0,06	±0,07	±0,08		
	0,8	1,0	±0,04	±0,06	±0,08	±0,09		
	1,0	1,2	±0,04	±0,07	±0,09	±0,10		
	1,2	1,5	±0,05	±0,09	±0,10	±0,11		
	1,5	1,8	±0,06	±0,10	±0,11	±0,12		
	1,8	2	±0,06	±0,11	±0,12	±0,14		
	2	2,5	±0,07	±0,12	±0,13	±0,15		
	2,5	3,0	±0,08	±0,13	±0,15	±0,17		
3,0	3,5	±0,10	±0,15	±0,17	±0,18			
3,5	4,0	±0,15	±0,20	±0,22	±0,23			
4,0	5,0	±0,18	±0,22	±0,24	±0,25			
When measuring the thickness, a zone 10mm wide from the edges of the product shall be disregarded.								

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Dimensional tolerances IDT EN 485-4	<p><b>Width tolerances for sheet and plate</b></p> <table border="1" data-bbox="360 365 1299 645"> <thead> <tr> <th colspan="2">Specified thickness [mm]</th> <th colspan="3">Width tolerance for specified width [mm]</th> </tr> <tr> <th>Over</th> <th>Up to and including</th> <th>Up to and including 500mm</th> <th>Over 500mm up to and including 1250mm</th> <th>Over 1250mm up to and including 2000mm</th> </tr> </thead> <tbody> <tr> <td>0,20</td> <td>3,0</td> <td>+1,5 0</td> <td>+3 0</td> <td>+4 0</td> </tr> <tr> <td>3,0</td> <td>6,0</td> <td>+3 0</td> <td>+4 0</td> <td>+5 0</td> </tr> <tr> <td>6,0</td> <td>20</td> <td>+4 0</td> <td>+5 0</td> <td>+5 0</td> </tr> </tbody> </table> <p><b>Length tolerances for sheet and plate</b></p> <table border="1" data-bbox="360 696 1299 1021"> <thead> <tr> <th colspan="2">Specified thickness [mm]</th> <th colspan="5">Length tolerance for specified length [mm]</th> </tr> <tr> <th>Over</th> <th>Up to and including</th> <th>Up to and including 1000mm</th> <th>Over 1000mm up to and including 2000mm</th> <th>Over 2000mm up to and including 3000mm</th> <th>Over 3000mm up to and including 4000mm</th> <th>Over 5000mm</th> </tr> </thead> <tbody> <tr> <td>0,20</td> <td>3,0</td> <td>+3 0</td> <td>+4 0</td> <td>+6 0</td> <td>+8 0</td> <td rowspan="3">+0,2% of specified length</td> </tr> <tr> <td>3,0</td> <td>6,0</td> <td>+4 0</td> <td>+6 0</td> <td>+8 0</td> <td>+10 0</td> </tr> <tr> <td>6,0</td> <td>20</td> <td>+6 0</td> <td>+8 0</td> <td>+10 0</td> <td>+10 0</td> </tr> </tbody> </table> <p><b>Width tolerances for strip</b></p> <table border="1" data-bbox="360 1077 1299 1503"> <thead> <tr> <th colspan="2">Specified thickness [mm]</th> <th colspan="5">Width tolerance for specified width [mm]</th> </tr> <tr> <th>Over</th> <th>Up to and including</th> <th>Up to and including 100mm</th> <th>Over 100mm up to and including 300mm</th> <th>Over 300mm up to and including 500mm</th> <th>Over 500mm up to and including 1250mm</th> <th>Over 1250mm up to and including 1650mm</th> </tr> </thead> <tbody> <tr> <td>0,20</td> <td>0,6</td> <td>+0,3 0</td> <td>+0,4 0</td> <td>+0,6 0</td> <td>+1,5 0</td> <td>+2,5 0</td> </tr> <tr> <td>0,6</td> <td>1,0</td> <td>+0,3 0</td> <td>+0,5 0</td> <td>+1 0</td> <td>+1,5 0</td> <td>+2,5 0</td> </tr> <tr> <td>1,0</td> <td>2,0</td> <td>+0,4 0</td> <td>+0,7 0</td> <td>+1,2 0</td> <td>+2 0</td> <td>+2,5 0</td> </tr> <tr> <td>2,0</td> <td>3,0</td> <td>+1 0</td> <td>+1 0</td> <td>+1,5 0</td> <td>+2 0</td> <td>+2,5 0</td> </tr> <tr> <td>3,0</td> <td>5,0</td> <td>-</td> <td>+1,5 0</td> <td>+2 0</td> <td>+3 0</td> <td>+3 0</td> </tr> </tbody> </table>	Specified thickness [mm]		Width tolerance for specified width [mm]			Over	Up to and including	Up to and including 500mm	Over 500mm up to and including 1250mm	Over 1250mm up to and including 2000mm	0,20	3,0	+1,5 0	+3 0	+4 0	3,0	6,0	+3 0	+4 0	+5 0	6,0	20	+4 0	+5 0	+5 0	Specified thickness [mm]		Length tolerance for specified length [mm]					Over	Up to and including	Up to and including 1000mm	Over 1000mm up to and including 2000mm	Over 2000mm up to and including 3000mm	Over 3000mm up to and including 4000mm	Over 5000mm	0,20	3,0	+3 0	+4 0	+6 0	+8 0	+0,2% of specified length	3,0	6,0	+4 0	+6 0	+8 0	+10 0	6,0	20	+6 0	+8 0	+10 0	+10 0	Specified thickness [mm]		Width tolerance for specified width [mm]					Over	Up to and including	Up to and including 100mm	Over 100mm up to and including 300mm	Over 300mm up to and including 500mm	Over 500mm up to and including 1250mm	Over 1250mm up to and including 1650mm	0,20	0,6	+0,3 0	+0,4 0	+0,6 0	+1,5 0	+2,5 0	0,6	1,0	+0,3 0	+0,5 0	+1 0	+1,5 0	+2,5 0	1,0	2,0	+0,4 0	+0,7 0	+1,2 0	+2 0	+2,5 0	2,0	3,0	+1 0	+1 0	+1,5 0	+2 0	+2,5 0	3,0	5,0	-	+1,5 0	+2 0	+3 0	+3 0	EN 15088:2005								
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Mechanical properties IDT EN 485-2	<table border="1" data-bbox="360 1559 1262 1906"> <thead> <tr> <th rowspan="2">Temper</th> <th colspan="2">Specified thickness</th> <th colspan="2">Tensile strength R<sub>m</sub></th> <th colspan="2">Yield strength R<sub>p0,2</sub></th> <th colspan="2">Elongation A<sub>50 mm</sub></th> <th colspan="2">Bend radius</th> </tr> <tr> <th colspan="2">[mm]</th> <th colspan="2">[MPa]</th> <th colspan="2">[MPa]</th> <th colspan="2">[%]</th> <th>180°</th> <th>90°</th> </tr> <tr> <th></th> <th>Over</th> <th>Up to and including</th> <th>min</th> <th>max</th> <th>min</th> <th>max</th> <th>min</th> <th>max</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="3">O</td> <td>0,2</td> <td>0,5</td> <td>255</td> <td>315</td> <td>110</td> <td></td> <td>11</td> <td></td> <td>1,0 t</td> <td></td> </tr> <tr> <td>0,5</td> <td>1,5</td> <td>255</td> <td>315</td> <td>110</td> <td></td> <td>12</td> <td></td> <td>1,0 t</td> <td></td> </tr> <tr> <td>1,5</td> <td>3,0</td> <td>255</td> <td>315</td> <td>110</td> <td></td> <td>13</td> <td></td> <td>1,0 t</td> <td></td> </tr> <tr> <td rowspan="3">H111</td> <td>0,2</td> <td>0,5</td> <td>255</td> <td>315</td> <td>110</td> <td></td> <td>11</td> <td></td> <td>1,0 t</td> <td></td> </tr> <tr> <td>0,5</td> <td>1,5</td> <td>255</td> <td>315</td> <td>110</td> <td></td> <td>12</td> <td></td> <td>1,0 t</td> <td></td> </tr> <tr> <td>1,5</td> <td>3,0</td> <td>255</td> <td>315</td> <td>110</td> <td></td> <td>13</td> <td></td> <td>1,0 t</td> <td></td> </tr> <tr> <td rowspan="2">H19</td> <td>0,2</td> <td>0,5</td> <td>380</td> <td></td> <td>320</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0,5</td> <td>1,5</td> <td>380</td> <td></td> <td>320</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Temper	Specified thickness		Tensile strength R <sub>m</sub>		Yield strength R <sub>p0,2</sub>		Elongation A <sub>50 mm</sub>		Bend radius		[mm]		[MPa]		[MPa]		[%]		180°	90°		Over	Up to and including	min	max	min	max	min	max			O	0,2	0,5	255	315	110		11		1,0 t		0,5	1,5	255	315	110		12		1,0 t		1,5	3,0	255	315	110		13		1,0 t		H111	0,2	0,5	255	315	110		11		1,0 t		0,5	1,5	255	315	110		12		1,0 t		1,5	3,0	255	315	110		13		1,0 t		H19	0,2	0,5	380		320		1				0,5	1,5	380		320		1				
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Essential characteristics	Performance	Harmonized technical specification								
Weldability IDT EN 1999-1-1	Class I	EN 15088:2005								
Bendability	<table border="1"> <thead> <tr> <th rowspan="2">Alloy</th> <th colspan="2">Temper</th> </tr> <tr> <th>O H111</th> <th>H19</th> </tr> </thead> <tbody> <tr> <td>EN AW-5182</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		Alloy	Temper		O H111	H19	EN AW-5182	-	-
Alloy	Temper									
	O H111		H19							
EN AW-5182	-		-							
Fatigue strength	NPD									
Dangerous substances IDT EN 573-3	NO									
Durability rating IDT EN 1999-1-1	Class A									

The performance of the product identified above is in conformity with the declared performance/s.  
This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011,  
under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Paweł Rutecki  
Director of Development and Investment

Konin, 13 April 2021

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 Paweł Rutecki