

DECLARATION OF PERFORMANCE

No. 16/2021

1. Unique identification code of the product-type:

Gränges_Konin_5049

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-5049 cold rolled

Essential characteristics	Performance	Harmonized technical specification																																																																																																				
Dimensional tolerances IDT EN 485-4	Thickness tolerances <table border="1" data-bbox="373 1162 1200 1756"> <thead> <tr> <th colspan="2" data-bbox="373 1162 651 1323" rowspan="2">Specified thickness [mm]</th> <th colspan="4" data-bbox="651 1162 1200 1196">Thickness tolerances [mm]</th> </tr> <tr> <th data-bbox="651 1196 783 1323">Up to and including 1000mm</th> <th data-bbox="783 1196 916 1323">Over 1000mm up to and including 1250mm</th> <th data-bbox="916 1196 1048 1323">Over 1250mm up to and including 1600mm</th> <th data-bbox="1048 1196 1200 1323">Over 1600mm up to and including 2000mm</th> </tr> <tr> <th data-bbox="373 1323 505 1373">Over</th> <th data-bbox="505 1323 651 1373">Up to and including</th> <th data-bbox="651 1323 783 1373">mm</th> <th data-bbox="783 1323 916 1373">mm</th> <th data-bbox="916 1323 1048 1373">mm</th> <th data-bbox="1048 1323 1200 1373">mm</th> </tr> </thead> <tbody> <tr><td>0,20</td><td>0,4</td><td>±0,02</td><td>±0,04</td><td>±0,05</td><td>-</td></tr> <tr><td>0,4</td><td>0,5</td><td>±0,03</td><td>±0,04</td><td>±0,05</td><td>±0,06</td></tr> <tr><td>0,5</td><td>0,6</td><td>±0,03</td><td>±0,05</td><td>±0,06</td><td>±0,07</td></tr> <tr><td>0,6</td><td>0,8</td><td>±0,03</td><td>±0,06</td><td>±0,07</td><td>±0,08</td></tr> <tr><td>0,8</td><td>1,0</td><td>±0,04</td><td>±0,06</td><td>±0,08</td><td>±0,09</td></tr> <tr><td>1,0</td><td>1,2</td><td>±0,04</td><td>±0,07</td><td>±0,09</td><td>±0,10</td></tr> <tr><td>1,2</td><td>1,5</td><td>±0,05</td><td>±0,09</td><td>±0,10</td><td>±0,11</td></tr> <tr><td>1,5</td><td>1,8</td><td>±0,06</td><td>±0,10</td><td>±0,11</td><td>±0,12</td></tr> <tr><td>1,8</td><td>2</td><td>±0,06</td><td>±0,11</td><td>±0,12</td><td>±0,14</td></tr> <tr><td>2</td><td>2,5</td><td>±0,07</td><td>±0,12</td><td>±0,13</td><td>±0,15</td></tr> <tr><td>2,5</td><td>3,0</td><td>±0,08</td><td>±0,13</td><td>±0,15</td><td>±0,17</td></tr> <tr><td>3,0</td><td>3,5</td><td>±0,10</td><td>±0,15</td><td>±0,17</td><td>±0,18</td></tr> <tr><td>3,5</td><td>4,0</td><td>±0,15</td><td>±0,20</td><td>±0,22</td><td>±0,23</td></tr> <tr><td>4,0</td><td>5,0</td><td>±0,18</td><td>±0,22</td><td>±0,24</td><td>±0,25</td></tr> </tbody> </table> <p data-bbox="373 1733 1200 1756">When measuring the thickness, a zone 10mm wide from the edges of the product shall be disregarded.</p>	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	EN 15088:2005
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Essential characteristics	Performance										Harmonized technical specification	
Dimensional tolerances IDT EN 485-4	Width tolerances for sheet and plate										EN 15088:2005	
	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								
Mechanical properties IDT EN 485-2	Length tolerances for sheet and plate											
	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						
	Width tolerances for strip											
	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						

Essential characteristics	Performance										Harmonized technical specification		
Mechanical properties IDT EN 485-2	Temper	Specified thickness [mm]		Tensile strength R _m [MPa]		Yield strength R _{p0,2} [MPa]		Elongation A50 mm [%]		Bend radius		EN 15088:2005	
		Over	Up to and including	min	max	min	max	min	max	180°	90°		
	H14	0,2 0,5 1,5 3,0 6,0 12,5	0,5 1,5 3,0 6,0 12,5 20,0	240 240 240 240 240 240	280 280 280 280 280 280	190 190 190 190 190 190		3 3 4 4 5		5			
	H16	0,2 0,5 1,5 3,0	0,5 1,5 3,0 6,0	265 265 265 265	305 305 305 305	220 220 220 220		2 3 3 3					
	H18	0,2 0,5 1,5	0,5 1,5 3,0	290 290 290		250 250 250		1 2 2					
	H22	0,2 0,5 1,5 3,0 6,0 12,5	0,5 1,5 3,0 6,0 12,5 20,0	220 220 220 220 220 220	270 270 270 270 270 270	130 130 130 130 130 130		7 8 10 11 10		9	1,5t 1,5t 2,0t 1,5t 2,5t		
	H32	0,2 0,5 1,5 3,0 6,0 12,5	0,5 1,5 3,0 6,0 12,5 20,0	220 220 220 220 220 220	270 270 270 270 270 270	130 130 130 130 130 130		7 8 10 11 10		9	1,5t 1,5t 2,0t 1,5t 2,5t		
	H24	0,2 0,5 1,5 3,0 6,0 12,5	0,5 1,5 3,0 6,0 12,5 20,0	240 240 240 240 240 240	280 280 280 280 280 280	160 160 160 160 160 160		6 6 7 8 10		8	2,5t 2,5t 2,5t 2,5t 3,0t		
	H34	0,2 0,5 1,5 3,0 6,0 12,5	0,5 1,5 3,0 6,0 12,5 20,0	240 240 240 240 240 240	280 280 280 280 280 280	160 160 160 160 160 160		6 6 7 8 10		8	2,5t 2,5t 2,5t 2,5t 3,0t		
	H26	0,2 0,5 1,5 3,0	0,5 1,5 3,0 6,0	265 265 265 265	305 305 305 305	190 190 190 190		4 4 5 6			1,5t 2,0t 3,0t 3,5t		
	H36	0,2 0,5 1,5 3,0	0,5 1,5 3,0 6,0	265 265 265 265	305 305 305 305	190 190 190 190		4 4 5 6			1,5t 2,0t 3,0t 3,5t		
	H28	0,2 0,5 1,5	0,5 1,5 3,0	290 290 290		230 230 230		3 3 4					
	H38	0,2 0,5 1,5	0,5 1,5 3,0	290 290 290		230 230 230		3 3 4					
	Weldability IDT EN 1999-1-1	Class I											
	Bendability	Alloy											
O H111		Temper											
		H12 H22 H32	H14 H24 H34	H16 H26 H36	H18 H28 H38								
EN AW-5049	B1	-	B2	-	-								

Essential characteristics	Performance	Harmonized technical specification
Fatigue strength	NPD	EN 15088:2005
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

.....Director of Development & Investment



Paweł Rutecki