

DECLARATION OF PERFORMANCE

No. 34/2021

1. Unique identification code of the product-type:

Gränges_Konin_AK4M1

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. Harmonised 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 AK4M1 cold rolled

Essential characteristics	Performance	Harmonised technical specification																																																																																																				
Dimensional tolerances IDT EN 485-4	Thickness tolerances <table border="1" data-bbox="368 1149 1195 1740"> <thead> <tr> <th colspan="2" data-bbox="368 1149 643 1312" rowspan="2">Specified thickness [mm]</th> <th colspan="4" data-bbox="643 1149 1195 1182">Thickness tolerances [mm]</th> </tr> <tr> <th data-bbox="643 1182 783 1312">Up to and including 1000mm</th> <th data-bbox="783 1182 898 1312">Over 1000mm up to and including 1250mm</th> <th data-bbox="898 1182 1013 1312">Over 1250mm up to and including 1600mm</th> <th data-bbox="1013 1182 1195 1312">Over 1600mm up to and including 2000mm</th> </tr> <tr> <th data-bbox="368 1312 509 1346">Over</th> <th data-bbox="509 1312 643 1346">Up to and including</th> <th data-bbox="643 1312 783 1346">mm</th> <th data-bbox="783 1312 898 1346">mm</th> <th data-bbox="898 1312 1013 1346">mm</th> <th data-bbox="1013 1312 1195 1346">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="368 1720 1195 1740">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
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																																																																																																	

Essential characteristics	Performance							Harmonised 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 according to Internal documentation	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	+0,2% of specified length			
	0,20	3,0	+3 0	+4 0	+6 0	+8 0					
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					
	Temper	Specified thickness		Tensile strength R _m		Yield strength R _{p0,2}		Elongation A _{50 mm}			
		[mm]		[MPa]		[MPa]		[%]			
		Over	Up to and including	min	max	min	max	min	max		
	O	0,2	0,5	120	160	45		13			
		0,5	1,5	120	160	45		14			
		1,5	3,0	120	160	45		15			
		3,0	4,0	120	160	45		17			
	H12	0,2	0,5	140	180	120		2			
		0,5	1,5	140	180	120		4			
		1,5	3,0	140	180	120		5			
	H14	0,2	0,5	160	200	140		2			
		0,5	1,5	160	200	140		2			
		1,5	2,0	160	200	140		4			
	H16	0,2	0,5	180	220	160		2			
		0,5	1,5	180	220	160		2			

Essential characteristics	Performance									Harmonised technical specification
Mechanical properties according to Internal documentation	Temper	Specified thickness		Tensile strength R _m		Yield strength R _{p0,2}		Elongation A50 mm		EN 15088:2005
		[mm]		[MPa]		[MPa]		[%]		
		Over	Up to and including	min	max	min	max	min	max	
	H18	0,2 0,5 1,5	0,5 1,5 2,5	200 200 200		180 180 180		1 2 2		
	H22	0,2 0,5 1,5 3,0	0,5 1,5 3,0 4,0	140 140 140 140	180 180 180	100 100 100		6 8 8 10		
	H24	0,2 0,5 1,5 3,0	0,5 1,5 3,0 4,0	160 160 160 160	200 200 200	120 120 120		4 5 6 9		
	H26	0,2 0,5 1,5	0,5 1,5 3,0	180 180 180	220 220 220	140 140 140		3 4 7		
	H28	0,2 0,5 1,5	0,5 1,5 2,5	200 200 200		160 160 160		3 4 4		
Weldability IDT EN 1999-1-1	NPD									
Bendability	NPD									
Fatigue strength	NPD									
Dangerous substances according to Internal documentation	NO									
Durability rating IDT EN 1999-1-1	NPD									

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