ALUSOL®

WHOM SO EVER IT MAY CONCERN

Product Specification			Specification-number:	
Customer:			Rev.number:	0
Product:	**Rollershutters (Primer Topcoat System)**		Date:	
			Sign.:	
	SPECIFICATION	STANDARD	REQUIREMENT	
1	**METAL**		EN AW 3005 H46	
1.1	Mechanical properties after coating	EN 1396	Rp0,2 : Min. 160 Mpa Rm : 185 – 240 Mpa A50 : Min. 4%	
1.2	Nominal metal thickness Tolerance on metal thickness	EN 485-4	0.28-0.48mm +/- 0.02 mm	
1.4	Tolerance on lateral bow	EN 485-4	≤ 3mm measured over 2000 mm length.	
1.5	Tolerance on width	EN 485-4	< 100 mm +0,3/-0 101-300mm +0,4/-0 301-500 mm +0,6/-0 501-1250 mm +1,5/-0	
2	**MAIN SIDE (PTS)**			
2.1	Coating thickness	EN 13523-1	25 +/- 3 microns [1)]	
2.1.1	Primer Topcoat (Polyurethan with polyamide)		Polyester: 5 +/- 1 micron [1)] PUR-PA: 20 +/- 2 microns [1)]	
2.2	Colour	EN 13523- 3 EN 1396	According to approved sample Ref. Part C.2	
2.2.1	Gloss	EN 13523-2	30 +/- 5 E	
2.3	Bending	EN 13523-7	T 0	
2.4	Impact	EN 13523-5/6	GT0	
3	**REVERSE SIDE**			
3.1	Protective blue transparent coating	EN 13523-1	4+/- 1 microns, Suitable for PU- foaming	
4	**PACKING SPESIFICATIONS**			
4.1	Packing of coil		C 32, eye to sky, wooden separators	
4.2	OD		Maximum : tba mm.Min tba mm	
4.3	Pallet weight		Maximum tba kg.	
4.4	ID		400 mm.	
4.5	Fibre core		No	
4.6	Main coating		Facing out	
4.7	.Coiling direction	EN1396	Clockwise	
5	**GENERAL INSTRUCTIONS**			
	Work certificates	EN 10204 -3.1B	To be sent pr. e-mail	

[1)] (Depending on colour)

تلفون : 8-4-3-4751112 965+ فاكس : 4751110 965+ - صبحـــان الجنـــوبي قطعـــة 8 شارع 101 قسيمة 174 - ص.ب 29599 الصفاة , الرمز البريدي : 15154, الكـويت
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PRESSURE STRESS VALUES OF ROLLING SHUTTERS MANUFACTURED BY ALUSOL – KUWAIT

Pressure stress values or in industrial terminology "Characteristics of resistance to the wind" is arranged by rule UNI EN 13659:04 issued in European Community.

The values are expressed in Newton per square meter units

1 Newton/square meter N/m^2 = 1 Pascal Classes established by the above mentioned rule are as follows:

Class	0	1	2	3	4	5	6
Nominal pressure (N/m^2)	<50	50	70	100	170	270	400
Security pressure (N/m^2)	<75	75	100	150	250	400	600

Slats for rolling shutters and rolling doors manufactured by ALUSOL ROLLING SHUTTERS INDUSTRIES KUWAIT are given below

Name of the slat	Specification
41mm, standard density polyurethane filled rollformed aluminium slat **TAP.N.041**	Made of Special alloy and tempered aluminium, 50 kg/m^3 density polyurethane foam.
41mm high density rigid polyurethane filled rollformed aluminium slat **TAP.H.041**	Made of special alloy and temper aluminium. 270-300 kg/m^3 density rigid polyurethane foam.
41mm standard density polyurethane filled, rollformed pvc coated galvanized steel slat **TSP.N.041**	Made of special alloy pvc coated hot dipped galvanized steel. 50kg/m^3 density polyurethane foam
55mm standard density polyurethane filled rollformed aluminium slat **TAP.N.055**	Made of Special alloy and tempered aluminium, 50 kg/m^3 density polyurethane foam.
55mm high density rigid polyurethane filled rollformed aluminium slat **TAP.H.055**	Made of special alloy and temper aluminium. 270-300 kg/m^3 density rigid polyurethane foam.
55mm standard density polyurethane filled, rollformed pvc coated galvanized steel slat **TSP.N.055**	Made of special alloy pvc coated hot dipped galvanized steel. 50kg/m^3 density polyurethane foam
77mm standard density polyurethane filled rollformed aluminium slat **TAP.N.077**	Made of Special alloy and tempered aluminium, 50 kg/m^3 density polyurethane foam
77mm standard density polyurethane filled, rollformed pvc coated galvanized steel slat **TSP.N.077**	Made of special alloy pvc coated hot dipped galvanized steel. 50kg/m^3 density polyurethane foam
55mm extruded aluminium slat **TAE.0.055**	Special alloy extruded aluminium slat for heavy duty use
77mm extruded aluminium slat **TAE.0.077**	Special alloy extruded aluminium slat for heavy duty use

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Sectional shape and quality of extrusion of the guide channels are important factors in the classification of the resistance to the wind. It is assumed that high quality aluminium extrusion guide channels with reinforcement boxes are used in the installation. It is also assumed that proper rubber or plastic inserts are used to increase the blocking effect of the guide channels on the rolling shutter or door curtain.

Another important factor would be the use of fixing pin in the middle of the end slat. For wider opening the use of this pin would contribute substantially to the resistance to the wind. In the evaluation tables given below the effect of this pin is not taken into consideration.

Classification of the resistance to the wind of Alusol Kuwait profiles for rolling shutters and rolling doors are given below.

Classification of the resistance to the wind
Finished width of the rolling shutters and/or doors in (cm)

Width(cm)-	580	550	520	490	460	430	400	370	340	310	280	250	220	190	160	130
TAP.N.041	0	0	0	0	0	0	0	1	1	2	2	3	3	4	5	6
TAP.H.041	0	0	0	0	1	1	2	2	3	3	3	4	4	5	6	6
TSP.N.041	0	0	0	1	1	2	2	3	3	4	4	4	5	6	6	6
TAP.N.055	0	0	0	0	1	1	1	2	2	3	3	4	5	6	6	6
TAP.H.055	0	0	1	1	2	2	3	3	4	4	5	5	6	6	6	6
TSP.N.055	0	0	1	1	2	2	3	3	4	4	5	5	6	6	6	6
TAP.N.077	0	1	1	2	2	3	3	4	4	5	5	6	6	6	6	6
TSP.N.077	1	1	2	2	3	3	4	4	5	5	6	6	6	6	6	6
TAE.0.055	0	1	1	2	2	3	3	4	4	5	5	6	6	6	6	6
TAE.0.077	1	1	2	2	3	3	4	5	5	5	6	6	6	6	6	6

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