

technical specifications



PVDF PRE-PAINTED ALUMINIUM SPECIFICATIONS

Paint Quality	PVDF quality paint. RAL or other colour standards can be supplied.		
Pretreatment	Chrome Free Pretreatment System.		
Coating	Type Of Paint Coating	Thickness (Microns)	
Primer	Polyester	5 ± 2	
Base Coat	PVDF	20 ± 2	
Clear Coat (Optional)	PVDF or FEVE (Lumiflon)	12 ± 2	
Total		32 - 42	
Backcoat (Optional)	Epoxy-Polyester	5 ± 2	
	Grey/Transparent		
PRODUCT PERFORMANCE			
Test Property	Specs	Test Results	Test Methods
Color Matching (Solid Colors)	$\Delta E < 1.0$	AE < 1.0	ECCA-T3
Gloss At 60 °	Requirement	Under Tolerances in EN1396	ECCA-T2
T Bend	Requirement	0 – 1T	ECCA- T7
Impact	7,5 Joule	Pass	ECCA- T5
Cross-cut	100%	Pass	ISO 2409
Pencil Hardness	F - HB	Pass	ECCA- T4
MEK Resistance	100 DBR	Pass	ECCA - T11
5% HCL Acid & 5% NaOH Alkali Test	24HRS	Pass	ASTM D2248-01a(2007)
QUV-A Resistance	3000 Hours	Pass	ECCA-T10
Humidity Resistance	3000 Hours	Pass	ASTM D2247
Abrasion Resistance	< 40 mg	Pass	ISO 11998
Salt Spray Test	3000 Hours	Pass	ECCA-T8

HIGH-DURABLE-POLYESTER (HDPE) PRE-PAINTED ALUMINIUM SPECIFICATIONS

Paint Quality	High Durable Polyester quality paint. RAL or other colour standards can be supplied.		
Pretreatment	Chrome Free Pretreatment System.		
Coating	Type Of Paint Coating	Thickness (Microns)	
Primer	PE	5 ± 2	
Base Coat	HDPE	20 ± 2	
Total		21 - 29	
Backcoat (Optional)	Epoxy-Polyester	5 ± 2	
	Grey/Transparent		
PRODUCT PERFORMANCE			
Test Property	Specs	Test Results	Test Methods
Color Matching (Solid Colors)	ΔE < 1.0	AE < 1.0	ECCA-T3
Gloss At 60 °	Requirement	Under Tolerances in EN1396	ECCA- T2
T Bend	Requirement	0 – 1,5T	ECCA- T7
Impact	7,5 Joule	Pass	ECCA- T5
Cross-cut	100%	Pass	ISO 2409
Pencil Hardness	F - HB	Pass	ECCA- T4
MEK Resistance	100 DBR	Pass	ECCA - T11
5% HCL Acid & 5% NaOH Alkali Test	24HRS	Pass	AAMA-620
QUV-A Resistance	2000 Hours	Pass	ECCA-T10
Humidity Resistance	1500 Hours	Pass	ASTM D2247
Abrasion Resistance	< 40 mg	Pass	ISO 11998
Salt Spray Test	1500 Hours	Pass	ECCA-T8

POLYESTER PRE-PAINTED ALUMINIUM SPECIFICATIONS

Paint Quality	Polyester quality paint. RAL or other colour standards can be supplied.		
Pretreatment	Chrome Free Pretreatment System.		
Coating	Type Of Paint Coating	Thickness (Microns)	
Primer	Polyester	5 ± 2	
Base Coat	Polyester	20 ± 2	
Total		21 - 29	
Backcoat (Optional)	Epoxy-Polyester	5 ± 2	
	Grey/Transparent		
PRODUCT PERFORMANCE			
Test Property	Specs	Test Results	Test Methods
Color Matching (Solid Colors)	ΔE < 1.0	AE < 1.0	ECCA-T3
Gloss At 60 °	Requirement	Under Tolerances in EN1396	ECCA- T2
T Bend	Requirement	0 – 2T	ECCA- T7
Impact	7,5 Joule	Pass	ECCA- T5
Cross-cut	100%	Pass	ISO 2409
Pencil Hardness	F - HB	Pass	ECCA- T4
MEK Resistance	100 DBR	Pass	ECCA - T11
5% HCL Acid & 5% NaOH Alkali Test	24HRS	Pass	AAMA-620
QUV-A Resistance	500 Hours	Pass	ECCA-T10
Humidity Resistance	1000 Hours	Pass	ASTM D2248-01a(2007)
Abrasion Resistance	< 40 mg	Pass	ISO 11998
Salt Spray Test	1000 Hours	Pass	ECCA-T8

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Photo: MGC Inwest – Tomasz Morawski

COMPARISON OF HDPE & PVDF

	HDP PE	PVDF
Gloss	All Glosses %3-%90	One Gloss (Standard) 30% Gloss can be increased with Lumiflon layer.
Color	All Colors	No Bright Colors
Price	\$/sqm: less \$/Kg: less	\$/sqm: more \$/Kg: more
Line Speed	More	Less
Overcoating	Possible	Not possible
PMT (Gas)	232 °C 232 °C	249 °C 249 °C
Application	5μ+20μ 5μ+20μ	5μ+20μ 5μ+20μ
Aspects	All Grained Wrinkled Malt High Gloss Pearlescent	High Gloss (with 3rd layer-lumiflon)
High Gloss	5μ+20μ 5μ+20μ	3rd layer of lumiflon 2nd pass 20-30\$/Kg-250 sqm/Kg/μ
UV Durability	RUV 4	< RUV 4
Warranty	10-15 Years (Due to thickness and location)	10-30 Years (Due to thickness and location)

PAINTS REFERENCES

	ECCA	EN	ASTM
Prime Coating Dry Film Thickness	T1	13523-1	ASTM D7091 - 13
Topcoat Dry Film Thickness	T1	13523-1	ASTM D7091 - 13
Specular Gloss	T2	13523-2	ASTM D 523-89
Color Differences	T3	13523-3	ASTM D2244 - 11
Pencil Hardness	T4	13523-4	ASTM D3363 - 05(2011)e2
Reverse Impact	T5	13523-5	ASTM D2794 - 93
Coating Adhesion		ISO-2409	ASTM D3359 - 09e2
Coating Flexibility	T7	13523-7	ASTM D4145-10
Abrasion Resistance		ISO 11998	ASTM D4060 - 10
5% Hcl Acid & 5% Naoh Alkali Resistance			ASTM D2248-01a(2007)
Salt Acetic Spray Resistance	T8	13523-8	ASTM B117-11
Water Immersion Resistance	T9	13523-9	ASTM D870-02
QUV - A Resistance	T10	13523-10	ASTM D4587 - 11
QUV - B Resistance	T10	13523-10	ASTM D4587 - 11
MEK Resistance	T11	13523-11	ASTM D5402 - 06
Chalking	T14	13523-14	ASTM D4214 - 07
Humidity Resistance		13523-25	ASTM D2247-11