HDP 40µm Technical Data Sheet

Luxe Coat A1 pre-painted aluminium offers an outstanding corrosion resistance and colour retention thanks to its high build paint system developed by us specifically for the harsh condition of the environments.

Major advantages:

• High Durability: The high durabilty polymers with, melamine formaldehyde or blocked polyisocyanates resins, applied in a high paint thickness coil coating paint system offer the highest resistance to corrosion, UV and aging making it the perfect choice for claddings.

• Aesthetics: An unlimited range of colours including solid, metallic, iridium, sparkling and custom colours including EURAS anodised, wood, stone, patina, zinc, corten, aged copper look etc in all gloss levels

• Best Warranty: Luxe Coat A1 warranty of up to 40 years in rural, urban light industrial or light marine environments and 20 years for very severe costal marine environments. Further details are available in the "warranty application questionnaire" and our technical department.

• Non-Combustible: 100% non-combustible achieving A1 reaction to fire when tested to EN13501-1

• Fabrication: The pre-finished solid aluminium panel supplied with protective film can be fabricated through bending, routing, curving, drilling, stamping, punching, cutting and perforating saving time, money and reducing the carbon footprint

• Sustainability: 100% recyclable

Luxe Coat A1 has been developed for external applications such as rain screen panels and cassettes for re-cladding buildings with un-safe combustible ACM or HPL cladding as well as new buildings produced from our 3mm thickness solid aluminium panels that are truly 100% non-combustible achieving A1 reaction to fire according to EN13501-1

Luxe Coat A1 HDP Coil Coated Aluminium			
Properties			**Test Standard**
Nominal organic coating thickness	µm	35-45	EN 13523-1
Specular gloss (60°)	(%)	5-85	EN 13523-2
Colour difference one supply	CIELAB	ΔE ≤ 1.0*	EN 13523-3
Pencil hardness		F-H	EN 13523-4
Resistance to rapid deformation		100%	EN 13523-5
Adhesion after indentation		100%	EN 13523-6
Resistance to cracking on bending	T	1.0T@23°C**	EN 13523-7
Resistance to acetic salt spray fog	hours	1000 (Class 3)	EN 13523–8
Resistance to humidity	hours	1000	EN 13523-25
Durability of the organic coating		Category 4***	EN 1396:2015
Colour fastness Florida 45 ° South	5 years	≤ 5 ΔE* (Class 3)	EN 13523-19
Resistance to chalking Florida 45 ° South		≤ 2*	EN ISO 4628-6
Reaction to fire classification	A1	Non-Combustible	EN 13501-1:2018

*These figures are for guidance only and are not appropriate for all colours.

** Depending on the thickness, alloy and temper

*** a) severe industrial — extreme conditions;

b) very severe coastal marine (less than 3 000 m from the sea, depending also on the landscape)

c) high U.V plus severe conditions (tropical and marine).

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Technical Properties				
Alloy / Temper	**5005 H44**	**5754 H111**		**Test Standard**
Total thickness	3.0 (±0.15mm)	3.0 (±0.17mm)	mm	EN 485-4
Width	1250 / 1500 (max ± 1.5mm/m)*		mm	EN 485-4
Length	2000 - 6000 (max ± 1.5mm/m)		mm	EN 485-4
Flatness tolerance	max. 0.5% of the length or width		mm	EN 485-4
Squareness tolerance	max. 10		mm	EN 485-4
Weight (Including paint & protective film)	8.247	8.174	kg/m²	
Tensile strength	145-185	190 - 240	MPa	EN 1396:2015
0.2% proof stress	110 min	80 min	MPa	EN 1396:2015
Elongation A 50mm	>5	>16	%	EN 1396:2015
Minimum internal bending radii 180°	6	6	mm	EN 1396:2015
Linear expansion	0.0235	0.0238	mm/m/°K	
Thermal expansion	23.5 x10^-6 /K	24 x 10^-6 /K		
Thermal conductivity	201	147	W/m.K	
Sound transmission loss Rw	28	28	Db	
Modulus of elasticity	69.5	68	Gpa	
Melting point	655	600	°C	
Density	2.696	2.671	g/cm³	

* Other widths are available upon request

Maximum Warranty Period On The Painted Surface							
Category	**End use environment**	**Distance from any coast or source of pollution**	**Substrate**	**Years**	**Substrate**	**Years**	**Cleaning & Maintenance**
3a	Rural or urban light industrial or light marine	>3000m*	5005 H44	30	5754 H111	40	Every 6 months
4a	Severe industrial — extreme conditions	1000-3000m*	5005 H44	30	5754 H111	40	Every 6 months
		<1000m*	5005 H44	15	5754 H111	20	Every 3 months
4b	Very severe costal marine	1000-3000m*	5005 H44	30	5754 H111	40	Every 6 months
		<1000m*	5005 H44	15	5754 H111	20	Every 3 months

* Warranty period is subject to the completion of environmental questionnaire

Warranty periods are for vertical installations only. For non-vertical installations 45°- 5°degrees from the horizontal the warranty period will reduce by 5 years

Warranty period for locations in the United Kingdom and Ireland > 45°North or > 45°South Latitude

Protection films applied must be removed within 2 months of application and immediately after the installation of the product