

Technical Data Sheet

HDP 2L / HDP 2L cc on aluminium substrate

Version 2020-1

EuraDesign HDP 2L products are multi-layer systems consisting of a nominal 5 micron corrosion inhibitive primer, a 20 micron highly-durable-polymer polyester (PE HDP) basecoat and a 10 micron PE HDP design layer topcoat. EuraDesign HDP 2L cc (clearcoat) products offer a comparable set with the addition of a 15 micron PE HDP clearcoat.

Substrate & pre-treatment					
Width	≤ 1600mm				
Thickness aluminium	0,3-1,0mm				
Pre-treatment	Chrome-free conversion				
Substrate (alloy, temper)	3000 , 4000, 5000 series (H4x) EN 573-3				
Front side finish		EN 1396			
Resin chemistry	PE-HDP				
Film thickness (2L= HDP 2L / 3L = HDP 2L cc)	1L	2L	3L	4L	
Thickness without design coat	-	22-28µm	34-44µm	-	
	EN 13523-1				
Design coat	8-12µm EN 13523-1				
Colour match	Solid colours: ΔE(cmc) ≤ 1 Metallics: Visual OK ⁽²⁾ EN 13523-3; EN 13523-22				
Specular gloss	10-90 gloss units (acc. to EN 1396 Table 3) EN 13523-2				
Pencil hardness	≥ HB EN 13523-4				
Adhesion	≤ GT1 NEN-EN-ISO 2409				
Adhesion + rapid deformation indentation	≤ GT1 EN 13523-6				
Resistance to cracking on bending (T-Bend test on non-embossed material) ⁽³⁾	Temper	≤ H44	H46	H48	
		≤ 1,5T	≤ 2,0T	≤ 2,5T	
	EN 13523-7				
Resistance to MEK solvent (rubbing test)	≥ 100 double rubs EN 13523-11				
Durability according to testing					
Colour and gloss retention on xenon exposure ⁽⁴⁾	ΔE(cmc) ≤ 4 ≥ 65% gloss retention ISO 16474-2 2000 hours				
Humidity resistance	Blistering: < B2 (S2) ISO 6270-1 1000 hours				
Filiform corrosion resistance	Class 3 Under creep longest filament: ≤ 3mm ISO 4623-2 1000 hours				
Resistance to salt spray fog	Class 3 Under creep average: ≤ 2mm Blistering: < B2 (S2) EN 13523-8 1000 hours				
Resistance to fluorescent UV light and water condensation	R _{UV4} ΔE(cmc) ≤ 2 ≥ 80% gloss retention EN 13523-10 2000 hours				

Durability according to outdoor exposure		
Outdoor corrosion resistance	Class 3 Under creep average: ≤ 2mm Blistering: ≤ B2 (S2) EN 13523-21 3 years 90° North Seaside Bohus-Malmö	
Colour and gloss retention on natural weathering ⁽⁴⁾	ΔE ≤ 4 ≥ 65% gloss retention EN 13523-21 2 years 45° South Florida	
Resistance to chalking on natural weathering ⁽⁴⁾	≤ 10 % EN 13523-21 2 years 45° South Florida	
Warranty indication (final warranty upon request)		
Technical warranty ⁽⁵⁾	Non coastal areas: 20 years Coastal areas ⁽⁶⁾ : Not granted	
Aesthetical warranty ⁽⁷⁾	Zone A: 7 years Zone B: 5 years Zone C: 3 years	

⁽¹⁾ Protec is a high build primer (10µm) that improves corrosion resistance in extreme environments (coastal, airports, chemical industry etc.)

⁽²⁾ Metallic and pearlescent colours are batch and paint directional sensitive. Material for a building project must be ordered in one batch and should be installed in the same paint direction

⁽³⁾ The minimum flexibility depends on the coated substrate

⁽⁴⁾ Indicative values only. The UV durability performance will depend on the colour saturation/ type (e.g. light vs bright, solid finishes vs metallic)

⁽⁵⁾ The original paint surface that is directly exposed to the elements will not peel, blister, chip, check or crack (except for the minor cracking that may occur on edges or break bends at the time of fabrication) over more than 5% of the total surface over the technical warranty period. The technical warranty value will be equivalent to a maximum of 100% of the purchase price according to Euramax Coated Products terms and conditions

⁽⁶⁾ Coastal areas are located within 1500 meter from a salt water environment. For coastal areas we recommend an extra gauge (Protec) primer layer

⁽⁷⁾ The aesthetical warranty conditions will depend on the colour and project location and is subject to a warranty value reduction over the warranty period of the product (see appendix A, B and C for more details on aesthetic warranty)

Appendix A: Geographical warranty zones depending on Northern Latitude (NL) and Southern Latitude (SL)



Zone A: All countries situated > 45° NL and > 45° SL (e.g. Scandinavia, Great Britain, the Netherlands, Belgium, France, Switzerland, Austria, Germany)

Zone B: All countries situated between 45° and 30° NL and between 45° and 30° SL (e.g. France, Portugal, Spain, Italy, Greece, Turkey)

Zone C: All countries situated < 30° NL and < 30° SL (e.g. Guadeloupe, Cameroon, Saudi Arabia, Oman)

Appendix B: Aesthetic performance overview per geographical zone

Topcoat performance	Test specification	Zone A 10 years	Zone B 7 years	Zone C 5 years
Reduction in dry film thickness	EN 13523-1	≤ 4µm	≤ 4µm	≤ 5µm
Residual gloss	EN 13523-2	≥ 80%	≥ 70%	≥ 65%
Colour diff. ΔE for solid colours	EN 13523-3	≤ 5	≤ 6	≤ 7
Chalking %	ASTM D659-80	≤ 20	≤ 40	≤ 40

Appendix C: Aesthetic warranty value reduction over warranty period

Limited aesthetic warranty value over warranty period; % of full warranty refund					
3 Year	Year 1	Year 2	Year 3		
	100%	50%	20%		
5 Year	Year 1-2	Year 3	Year 4	Year 5	
	100%	50%	25%	10%	
7 Year	Year 1-3	Year 4	Year 5	Year 6	Year 7
	100%	80%	60%	40%	20%