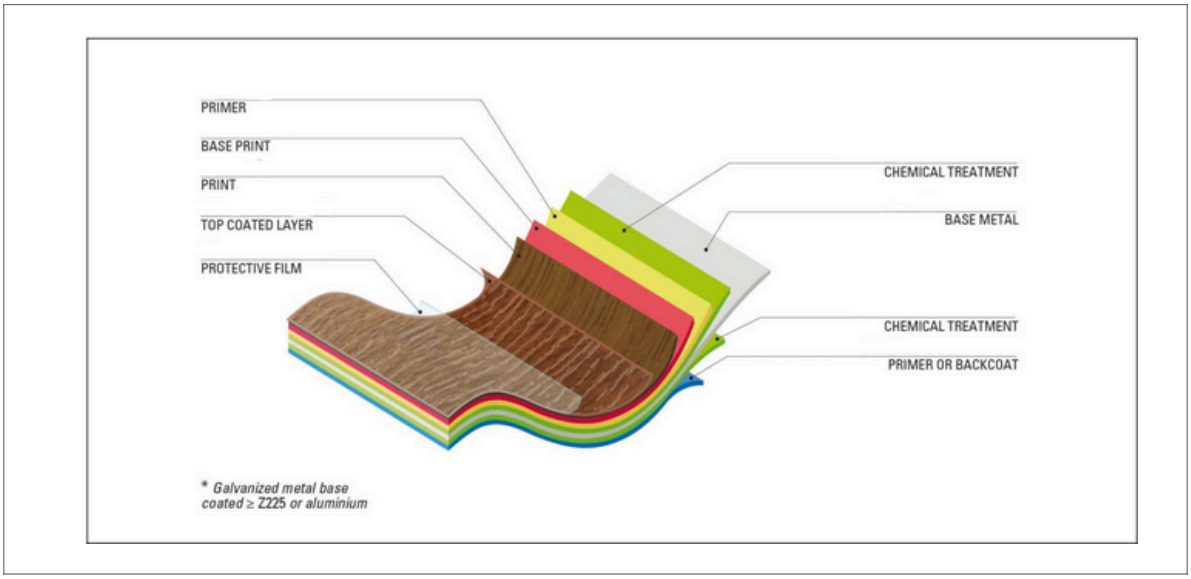
TECHNICAL FEATURES

CAP HD+

Super polyester pre-painted support



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is the new and innovative product that revolutionizes the market of pre-coated steel. Our research and development department has developed an organic coating with exceptional technical features and extraordinary aesthetic qualities. The base metal, aluminium or hot-dip galvanised steel (zinc coating minimum Z225) which constitutes the support of the product, is firstly treated chemically. Several layers of polyester paint are subsequently applied on the basis of the final product. The product can be of solid colour or printed. The total thickness of the organic coating can reach 50 microns. The printed coating simulates complex materials such as a wood, wall, cotto tile or Cor-ten effect.

METALLIC SUBSTRATES
Hot-dip galvanised steel (zinc coating minimum Z225) with guarantee
Aluminium (with guarantee)

MEASUREMENTS	
Substrate thickness	From 0.30 to 2 mm
Substrate aluminium th.	From 0.50 to 2 mm
Max. coil size	1500 mm
Min. coil size	700 mm
Coil ID	500 mm
Max. strip width	1500 mm
Min. strip width	19 mm
Max. sheets size	1500 x 6000 mm

minimum thickness x sheet cutting process 0.45mm

COATING OF UPPER FACE	
Solid colour Printed	25-35 µm organic coating 30-50 µm organic coating
	Self-adhesive protection film available only on some finishes (To be removed as soon as possible and in any case within 6 months from the date of production Varcolor Srl). Protection Films not applicable on finishes 108 and 122. In the absence of a protective film, the customer assumes the responsibility for any pressure marks and small defects arising from your production process.The suitability of the protective film for its production process / finished product must be confirmed by the customer through specific tests.
BACKSIDE COATING	
	3-5 micron thick primer, suitable for foaming/gluing with PUR or glues (all foaming/gluing tests have to be performed by the customer and are on his behalf)
On request:	- Coloured backing-coat 10-12 micron (+/- 2 µ) - 10 micron thick primer, please do refer to what mentioned in UNI EN 10169.

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GENERAL FEATURES		Test standards	Test results
CG.1	Colour	Printed	Colour consistency cannot be measured by instruments but only visually – to obtain a better uniformity it is advisable to work in a bigger manufacturing campaigns
		Tinte unite Solid colours	□ BEIGE/GREEN/WHITE : DE MAX 1 □ BLACK/BLUE/BROWN/GRAY: DE MAX 1,50 □ ORANGE/RED/YELLOW : DE MAX 2 □ MET (metalizzati) : solo controllo visivo per uniformita' vernice. Only visual control
CG.2	Gloss level	UNI EN 13523-2	Range gloss ≤ 10 — matt >10 ≤ 20 — low gloss >20 ≤ 40 — satin >40 ≤ 60 — semi-gloss >60 <80 — gloss □ 80 — high-gloss
CG.3	Maximum temperature range for end use	-20 °C + 70 °C	No significant change

MECHANICAL FEATURES			Test standards	Test results
CM.1	Adhesion after drawing 6 mm		UNI EN 13523-6	Good
CM.2	Adhesion after cupping (all products)		UNI EN 13523-7	≥ 1 T
CM.3	Pencil hardness		UNI EN 13523-4	F - H
CM.4	Resistance to cracking on bending (T-bend test)		UNI EN 13523-7	
	Hot-dip galvanised steel	Thickness ≤ 1 mm		≥2 T free of cracks
	Hot-dip galvanised steel	Thickness > 1 mm		≥3 T free of cracks
	Aluminium	Thickness ≤1,20 mm		≥2 T free of cracks
	Aluminium	Thickness ≤1,20 mm		≥2 T free of cracks
	Aluminium	Thickness ≤2 mm		not given gurantees
	Aluminium	Thickness ≤1 mm		≥2 T free of cracks
	Aluminium	Thickness ≤2 mm		not given gurantees
CM.5	Surface scratch resistance		UNI EN 13523-16	Weight loss 30-35 square mm
CM.6	Resistance to rapid deformation (impact test)		UNI EN 13523-5	16 J no visible cracks using a magnifying lens 10x

(*)In order to avoid possible problems of colour consistency while manufacturing a single order, it is advisable not to use coils coming from different batches.

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(**) Test results refer to quality, alloy and hardness of aluminium as shown by Varcolor. Results relating to other materials/quality have to be agreed upon and specified at the time of the order. In case of materials supplied for subcontracting, the tests must be agreed between the parties. Unless otherwise agreed, the bending test is carried out vertically along the rolling direction.

CHEMICAL-PHISYCAL FEATURES		Test standards	Test results
CCF.1	Resistance to fluorescent UV light and water condensation	UNI EN 13523-10	Residual gloss > 80% of the baseline UV resistance category RUV 4 2000 h UVA 340
		Printed	
		Solid colours	Residual gloss > 50% of the baseline UV resistance category RUV 3 Non ci sono perdite di adesione o bolliture
CCF.2	Resistance to water	UNI EN 13523-9	No loss of adhesion or bubbles
CCF.3	Corrosion resistance	UNI EN 13523-8	
	Hot-dip galvanised steel ,zinc coating minimum Z225		500 h creepage max 2 mm no blisters
	Aluminium		1000 h without penetration
CCF.4	Resistance at 100% relative humidity	UNI EN 13523-26	1.000 h no blisters
	Hot-dip galvanised steel		1.000 h no blisters
	Aluminium		1.000 h no blisters

(***) Test results refer to the quality of aluminium as shown by Varcolor. Results relating to other materials/quality have to be agreed upon by the parties.
In case of materials supplied for subcontracting, the tests must be agreed between the parties.

CERTIFICATIONS		Test norms	Test results
CER.1	Reaction to fire classification for building products	EN 13501	Classification A1
CER.2	Marine Equipment Certification according to European MED Directive	European Directive 2014/90/EU	Certificate MED B and MED D

CLEANING INSTRUCTIONS FOR CAP HD+			
P.1	General rules	P.2	Removal of small stains
	In order to clean the surface please use only water and neutral soap. It's advisable to use a soft cloth, rinsing and drying up the surface with care. Please avoid using cleaning agents containing abrasive particles.		Surface stains can be removed using mineral turpentine or denatured alcohol.

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WAREHOUSING AND PROCESSING CAP HD+	
D.1	Coils or pallets of precoated materials should be stored under a roof and in places not subject to big changes of temperature in order to avoid the possibility of condensation.
D.2	Materials protected with peeling film for temporary protection must be placed far away from heat/humidity sources and not exposed to direct solar rays. The protective peeling film should anyway be removed within and not later than 6 months from mill's manufacturing date.
D.3	During transport the material must be protected from moisture and condensation. It must be loaded on vehicles in such a way as to ensure protection from collisions, abrasions and overturning.
L.1	Precoated materials should be preferably utilized (within six months from reception) and using appropriate machines to avoid abrasions, scratch, cuts, marks on the film surface and/ or cracks of the same or even of the zinc layer.
L.2	During rollforming or bending it is necessary that the tools should contemplate not only the thickness of the material itself but also the possible tolerances so as to avoid relaminations.
L.3	As far as flatness of strips and coils is concerned, please do refer to what mentioned in UNI EN 10143.
L.4	The ideal temperature at which materials must be formed or bent or punched should be around 18° C.

Production range :

Cold rolled steel Electrogalvanized steel HDG steel		Thickness (mm)										
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	2.0
Width (mm)	700/800	●	●	●	●	●	●	●	●	●	●	●
	800/900	●	●	●	●	●	●	●	●	●	●	●
	900/1000	●	●	●	●	●	●	●	●	●	●	●
	1000/1100	●	●	●	●	●	●	●	●	●	●	●
	1100/1200	●	●	●	●	●	●	●	●	●	●	●
	1200/1300	●	●	●	●	●	●	●	●	●	●	
	1300/1400		●	●	●	●	●	●	●	●		
	1400/1500		●	●	●	●	●	●	●	●		

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Stainless steel		Thickness (mm)										
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	2.0
Width(mm)	700/800		●	●	●	●	●	●	●	●	●	
	800/900		●	●	●	●	●	●	●	●	●	
	900/1000		●	●	●	●	●	●	●	●	●	
	1000/1100		●	●	●	●	●	●	●	●	●	
	1100/1200		●	●	●	●	●	●	●	●	●	
	1200/1300		●	●	●	●	●	●	●	●		
	1300/1400			●	●	●	●	●	●	●		
	1400/1500			●	●	●	●					

Aluminium		Thickness (mm)										
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	2.0
Width (mm)	700/800			●	●	●	●	●	●	●	●	●
	800/900			●	●	●	●	●	●	●	●	●
	900/1000			●	●	●	●	●	●	●	●	●
	1000/1100			●	●	●	●	●	●	●	●	●
	1100/1200			●	●	●	●	●	●	●	●	●
	1200/1300			●	●	●	●	●	●	●		
	1300/1400				●	●	●	●	●	●		
	1400/1500				●	●	●	●	●	●		

If the processing carried out does not comply with the parameters indicated, the customer assumes responsibility for the processing carried out.

Acceptance

Date :

Company stamp :

Name and signature of the authorised person :