

Performing with style

Pre-finished steels for consumer electronics

The Sector

Corus offer a range of pre-finished steels for the manufacture of wrap-arounds and top covers for Consumer Appliances, including video recorders, hi-fi systems, CD players, DVDs, television monitors, satellite receivers and computer cases.

The Products

Colorcoat® Metallic Polyester has Corus' outstanding high quality finish in silver and black with both metallic sheens and other finishes popular in electronic enclosures.

Stelvetite® is available in a wealth of colours, patterns and textures that have been developed especially for the teletronics market. Some of the finishes are impossible to create by Post-Painting methods.

With excellent durability, colour consistency, good scratch and mar resistance and a wide choice of finishes, Corus can provide your perfect solution.

Teletronics products from Corus are WEEE compatible as the coating contains no heavy metals or hexavalent chrome.

Selection and Use

Designed using application specific properties, Corus can offer help and advice on material selection to enable you

to get optimum performance. However, all our products have a high-quality surface finish, formability and good resistance to finger marking and corrosion. They are all available with strippable film which gives extra protection where applicable.

Colorcoat Metallic Polyester or *Stelvetite* is recommended for video recorders, CD players, DVD players, computers and other similar items. *Stelvetite* has a thicker coating and is more resistant to scratching and damage in handling.

Stelvetite offers a range of embosses such as Sandex, Suedex and Charcoal. These are fine, smooth-textured surface effects particularly recommended for the teletronics market. For applications that require a smooth paint finish, *Colorcoat* Metallic Polyester is recommended. The gloss level can be tailored to suit the customer.

The temperature at which *Colorcoat* and *Stelvetite* are formed is important. To maintain flexibility, the minimum forming temperature for *Colorcoat* Polyester is 16°C whereas for *Stelvetite* it is 20°C. With over 30 years experience, Corus have a proven track record in the industry and can offer help and advice to enable you to make the right choice for your application.

Products

Product	Colour	Finish
<i>Colorcoat</i> Metallic Polyester	Silver, black and other colours	Medium gloss
<i>Colorcoat</i> Plastisol	Various	Satin gloss
<i>Stelvetite</i>	Plain colours, metallics, woodgrain patterned prints and special effects, together with a selection of embosses available on certain films	

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The base plates for electrical consumer appliances are usually not seen, but require good corrosion resistance, an acceptable appearance, electrical conductivity and good resistance to finger marking. Corus offer a range of products suitable to complement the above/suitable for this application.

Substrates

Cold Reduced DC01, DC04 BS EN 10130 : 1999
Galvatite® DX51, DX53 BS EN 10142 : 2000

Reverse side coating

A thin conductive coating is available which allows contact earthing of the top cover with some corrosion resistance. The reverse side can be left with a pretreated unpainted, backing surface, which is suitable for earthing by contact only, but it may be subject to staining and white rust. There is also some possibility that the pretreatment chemicals on the uncoated side will stain the topcoat side when the strip is in coil form. A weld-through coating is also available which allows projection welding or stud welding. Users should consult Corus for information about welding and about other methods of joining which can avoid welding.

Typical properties

Property	Colorcoat Metallic Polyester	Stelvetite
Nominal organic coating thickness (µm) ECCA T1, BS 3900/C5	23	150 or 200 ¹
Specular Gloss (60°), ECCA T2, ASTM D523	40-50%	3-15% ²
Minimum bend diameter (T = substrate thickness), ECCA T, BS 3900/E1	2T	2T
Adhesion (cross hatch), BS 3900/E6	100%	N/A ³
Adhesion, 7mm Erichsen cup cross cut	N/A	1/2 cup peel back
Scratch resistance, BS 3900/E2	>2250g	>3500g
Abrasion resistance (taber), ASTM D4060 ⁴	25mg	4-15mg
Maximum continuous operating temperature	120	50

Notes:

1. The film thickness depends upon the colour or pattern selected.
2. Gloss level will vary according to the type of *Stelvetite* and its emboss.
3. N/A = not applicable.
4. Loss at 250 revs, 1000g load, CS10 wheels.
5. Contact Corus for further information about these products.
6. All figures above are typical properties and do not constitute a specification.

Dimensional limits

Thickness (mm)		Maximum width (mm)		
≥	≤	CR	Galvatite DX51	Galvatite DX53
0.400	0.499	1300	1300	N/A
0.500	1.200	1420	1420	1420

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