

## PRINTED TYPE

### PRE-COATED STEEL WITH PRINTED PVC FILM (TYPE DL, DT, DP)

#### 1. COMPOSITION

##### 1.1 Standard metallic support

- Continuously hot-dip zinc coated low carbon steel sheet and strip for cold forming, type DX51D (UNI EN 10346:Giu. 2009)

##### Other available supports

- Cold-rolled low carbon steel flat products for cold forming (UNI EN 10130:2000).
- Aluminium and aluminium alloys – Coil coated sheet and strip for general applications (EN AW-3103 [Al Mn 1])(UNI EN 1396:98).
- Stainless steel – Part 1. List of stainless steel (UNI EN 10088-1/97)

##### 1.2 Adhesive

##### 1.3 Coating

- Type A, with rigid PVC: *rigid polyvinylchloride (PVC) film decorated by rotogravure*
- Type B, with semirigid PVC: *semirigid polyvinylchloride (PVC) film decorated by rotogravure*

##### 1.4 Available on request

- Primer on second face to help the adhesion of the polyurethane foam to the steel support
- Second face coated with PVC film. The standard coating consists in a semirigid PVC film, 70  $\mu$  thickness ( $\pm 10\%$ ).
- Adhesive film for temporary protection.

#### 2. TECHNICAL FEATURES

##### 2.1 Film thickness

- Rigid PVC film 110, 130  $\mu$ m
- Semirigid PVC film 100, 120, 130, 160  $\mu$ m

- Thickness tolerance  $\pm 7\%$

##### 2.2 Adhesion after drawing (drawing depth: 6 mm.)

- (ECCA T6): *No detachment was observed*

##### 2.3 Resistance to bending

- (ECCA T7 [1996] procedura 5.1.1):  $\frac{1}{2} T$

##### 2.4 Resistance to rapid deformation

- (method ASTM D 2794-93): 140 in.- lb

##### 2.5 Resistance to salt fog

- (method ASTM B 117-95): 200 hours (adhesion loss  $\leq 2$  mm.)
- cold rolled base
- galvanized base:

- film in PVC rigid: 500 hours (adhesion loss  $\leq 2$  mm.)
- film in PVC semirigid: 300 hours (adhesion loss  $\leq 2$  mm.)

##### 2.6 Resistance to 100% relative humidity

- (method ASTM D 2247-94): 1000 hours.

##### 2.7 Pencil hardness

- (method ASTM D 3363-92a):
- Rigid PVC Film: HB
- Semirigid PVC film: B

##### 2.8 Artificial light fastness

- (method ASTM G 53-96):
- Rigid PVC film:  $\geq 6$
- Semirigid PVC film:  $\geq 7$
- Semirigid PVC film (outdoor use): 7- 8 / 8
- Test conditions
- Temperature: 55  $\pm$  3 °C
- Lamps: UV-A 340
- Cycle: *Irradiance only*
- Reference: *International blue scale*

##### 2.9 Taber abrasion (method ASTM D4060-95, mole type CS-10, weight 500 gr.):

- "A" type coating (rigid PVC)

Index of abrasion (after 1000 cycles)

- Finishing SA: 13 – 14
- Finishing SMA: 10 – 12

- "B" Type coating (semirigid PVC)

Index of abrasion (after 1000 cycles)

- Finishing SM: 10 – 12
- Finishing SME: 14 – 16
- Finishing "Poro Legno" : 15 – 16

## PRINTED TYPE

### MAINTENANCE OF PVC COATED STEEL

#### 1. CLEANING

##### 1.1 General rules

- Cleaning can be effected with water and neutral soap.
- We recommend cleaning with soft cloth, accurate rinsing and drying of the surface
- Avoid the use of abrasive products.

##### 1.2 Little stains removal

- Stains on the surface can be removed with white spirit.
- Various substances (such as nail enamel, rouge, polish, ink, tar) may penetrate into the film surface causing permanent staining.

Note:

It is preferred to avoid solvents and particularly acetone, toluene, ethylacetate, trichloroethylene, perchlorethylene.

### STORAGE AND PROCESSING OF SHEETS AND COILS

#### 1. STORAGE

- 1.1 Sheets and coils must be kept under shelter, in order to avoid sudden changes in temperature and the consequent condensation. The presence of humidity may cause whitish stains (white oxide) that could endanger the adhesion of polyurethane and provoke the alteration of the PVC coating.
- 1.2 Sheets covered with the adhesive film for temporary protection must be stored away from heat sources and sunrays.

#### 2. PROCESSING

- 2.1 Sheets and coils should be processed within 6 months of shipment, with the most suitable equipment in order to avoid abrasions on the surface of the coating or fissures of the coating and of the zinc layer.
- 2.2 Bending and roll forming machines should consider the final thickness and possible tolerances to avoid re-rolling processing.
- 2.3 Material that is to be processed should ideally have a temperature not lower than 18°C.