OUTDOOR TYPE

PRE-COATED STEEL WITH SEMIRIGID PVC FILM FOR OUTDOOR USE

(The articles with "E" as final letter in the identification code belong to this series)

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

- Semirigid PVC film (polyvinylchloride).

1.4 Available on request

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

2. TECHNICAL FEATURES

2.1	**Film thickness**		*130, 140, 160, 170 μm*
	• Thickness tolerance		*± 7%*
2.2	**Adhesion after drawing (drawing depth: 6 mm.)**	(standard of reference ECCA T6):	*No detachment was observed*
2.3	**Resistance to bending**	(ECCA T7 [1996] procedure 5.1.1):	*½ 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): galvanized base	*300 hours (adhesion loss ≤ 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):	*B*
2.8	**Artificial light fastness**	(method ASTM G 53-96):	*7-8 / 8*
	• Test conditions	➢ Temperature:	*55 ± 3 °C*
		➢ Lamps:	*UV-A 340*
		➢ Cycle:	*Irradiance only*
		➢ Reference:	*International blue scale*

2.9 Stain resistance (ECCA T18 [1995] procedure 5.1 - method ASTM D 1308-87):

- Period of test: *72 hours*
- Reagents: *Butter, margarine, vegetable oil, vinegar, fresh and conserved tomato, strawberries, coffee, tea, solution of 5% caustic soda, solution of 5% surface active agent, lubricating oil or grease, solution of 10 % citric, lactic or tartaric acid.*
- Results: *Stain building up in the contact zone with fresh tomato and coffee*

2.10 Gloss at 60° (ECCA T2 [1995] - method ASTM D 523-89):

- ➢ Finishing SM: *13 ± 5*
- ➢ Finishing "Marocchino": *15 ± 5*

(Note: Gloss values may be affected by embossing degree)

2.11 Taber abrasion (method ASTM D4060-95, mole type CS-10, weight 500 g.):

- Index of abrasion (after 1000 cycles)
  - ➢ Finishing SM: *14 - 16*
  - ➢ Finishing "Marocchino": *10 - 13*

Note: outdoor semirigid PVC coated steel must be applied to small surfaces only.

OUTODOOR TYPE

MAINTENANCE OF PVC COATED STEEL

1. CLEANING

1.1 General rules

- Cleaning must 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, lipstick, polish, ink, tar, etc.*) may penetrate into the film surface causing permanent staining.

Note:
It is preferred to avoid solvents such as acetone, toluene, ethyl acetate, thrichloroetylene, perchloretylene.

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 sun-rays.

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.