

Technical Data Sheet

VERTENE® HA

High Adhesion Thermoplastic Coating Powder from Verplastic S.p.A.

General Description

Verplastic Vertene HA has been engineered to provide an high and long lasting adhesion for exterior applications on steel (both galvanised and mild) and aluminium. This resin is based on a blend of polyolefins and for this reason is halogen free and totally "green". (No VOHC or Phthalates)

Verplastic Vertene HA is resistant to the worst weather conditions, acids, slat spray and every type of stress cracking. The material provides a good electrical insulation with a good resistance to abrasion and impact

The coating will last for decades, without using primers or similar.

Vertene HA could be applied by Fluidised Bed, Electrostatic Spraying, Flock Spraying, Rotolining.

Typical Uses

Wire Works Items, Fences, Street Furniture, Pipes (Potable Water Compliant), Trays, Automotive Components, Springs, Valves, Fittings, Posts, Panels.

Recommended Pre-treatment:

Mild steel is supposed to be blast cleaned or degreased.

Galvanised steel surface should be grit blasted

Typical proprieties of the powder

COVERAGE		3,5M2 AT 380 MICRONS
PARTICLE SIZE		95% LESS THAN 250MICRONS
BULK DENSITY		0,40 G/CM3
PACKAGING		20KG PE BAGS 500 KG SUPERSACKS 1000 KG SUPERSACKS
MELT FLOW RATE	g/10 MIN - ASTMD1238	15-35

Typical properties of the material

SPECIFIC GRAVITY		0,95G/CM3
TENSILE STRENGHT	ISO 527	14 Mpa
ELONGATION AT BREAK	ISO 527	790 %
BRITTLENESS TEMPERATURE	ASTM D 746	-80°C
HARDNESS	SHORE D	53
VICAT SOFTENING POINT	ISO 306	80°C
MELTING POINT		108°C
ESCR	ASTM D 1938	>1000 HOURS
FLAMMABILITY	UL94	UNRATED
WATER ABSORPTION	ASTM D570-81	<0.03%

Coating Properties

COATING THICKNESS		250 - 800 MICRONS
APPEARANCE		SMOOTH/GLOSSY
GLOSS	ISO2813	65
IMPACT STRENGHT	GARDNER ISO6272	2,5 JOULES (3MM PLATE)
ABRASION	TABER ASTM D4060/84 (H18, 500G LOAD, 2000CYCLES)	55 MG WEIGHT LOSS
SALT SPRAY	ISO 7253	NO BLISTERING AND CORROSION AFTER 10,000 HOURS
CHEMICAL RESISTANCE	ACIDS	GOOD
	ALJALI	GOOD
	SALTS	GOOD
	SOLVENTS	POOR
ADHESION	T-PEEL TESTING	A1 (VERY GOOD)
WEATHERING	QUV ASTM G53-77	2000HOURS, NO CHANGINGS IN COLOUR
FLAMMABILITY	UL94	*SEE MATERIAL PROPRIETIES
SAFE WORKING TEMPERATURE		55°C - 60°C

Health and Safety

Verplastic Vertene HA is a fine thermoplastic powder. There are no known hazards associated with it.

Normal handling precautions for powders should be taken.

Storage

Store in clean and dry area out of sunlight. The material will not deteriorate if out of sunlight. It's recommended to use the old stocks first.

Packaging

Verplastic Vertene HA is packed in 20KG PE Bags on 1000KG pallets