

Talisman 10

Performance Polymer Alloy Coating

11/2018

General description

Plascoat TALISMAN 10 has been specifically designed for the coating of dishwasher baskets. It is based on an alloy of functionalized polyolefins. Therefore, it is Halogen free and the combustion fumes are low in smoke and have a low toxicity level.

Plascoat TALISMAN 10 is resistant to stress cracking, staining and dishwasher detergents and rinse aids. It does not become tainted with food odours and can withstand the temperature of a dishwasher cycle.

Typical uses

The coating of dishwasher baskets.

Typical properties of the powder

Coverage (100% efficiency)	3.3 m ² /kg at 300 microns
Particle Size	95% less than 250 microns
Bulk Density (at rest)	0.40 g/cm ³
Fluidising Characteristics	Excellent
Packaging	20 kg paper sacks

Handling and storage

Stored in a clean dry area at 10-25°C and out of sunlight, the material should not deteriorate. However, in the interest of good housekeeping, old stocks should be used first.

Common to all coating powders, there may be the likelihood of agglomerate formation during transportation and storage. The coating powder can be sieved to break up the agglomerates and therefore return the powder to its original condition; this does not affect the quality of the powder. The accumulation of powder particles is a physical phenomenon and may occur as a result of compaction or when cold powder, below 10°C, is brought into direct contact with warm humid air. In this latter situation the powder, still sealed, should be given time to warm up to the ambient temperature before use.

Health and safety

Plascoat Talisman 10 is supplied as a finely divided powder. While there are no known health hazards associated with Talisman 10, normal handling precautions for dealing with fine organic powders should be taken - i.e. excessive dust generation and inhaling of the powder should be avoided. Facilities may be required for removing excess dust from the working area during the coating of certain difficult items.

As with all polymeric powders, the material can ignite if brought into contact with a high temperature source or ignition - particularly in the fluidised condition.

Reference should be made to the respective Plascoat GHS Safety Data Sheet, available on request.

Guide to typical coating conditions

Recommended Pre-treatment:

For mild steel, ensure metal is clean by thorough degreasing and removal of mill scale. To get the full benefits of the material, the metal can also be blast cleaned to Swedish standard SA 2½-3 or phosphated.

Batch Operation:

Metal preheat temperature 250°C - 380°C (oven temperature 360°C - 420°C), depending on metal thickness. Dip for 1.5 - 5 seconds. A post heat cycle at 170°C - 210°C may be required to develop fully the surface finish on the wires.

Water quenching is not necessary except for handling purposes. If present, water quenching should take place at least 30 seconds after all parts have flowed out to a smooth coating and at least 90 seconds after dipping in the powder. Quenching too soon may lead to pull-back on sharp edges and pinholes.

It is recommended that a reasonable quantity of standard domestic detergent is added to the quench water to optimise the finish.

Typical properties of the material

Specific Gravity		0.99 g/cm ³
Tensile Strength	ISO 527 (100 mm/min)	17 MPa
Elongation at Break	ISO 527 (100 mm/min)	500%
Hardness	Shore A	98
	Shore D	58
Pencil Hardness		H/B
Vicat Softening Point	ISO 306	103°C
Melting Point		155 °C
Environmental Stress Cracking	ASTM D1693	Greater than 1000 hrs

Typical properties of the coating

The following data applies to a 350 microns coating applied under standard conditions onto 3 mm thick steel or aluminium. The pre-treatment consisted of degreasing and grit-blasting unless otherwise stated.

Recommended Coating Thickness		200-600 microns
Appearance		Smooth/Glossy
Gloss	ISO 2813	60
Abrasion	Taber ASTM D4060/84 H18, 500g load, 1000 cycles	69 mg weight loss
	CS17, 500g load, 1000 cycles	20 mg weight loss
Salt Spray	ISO 9227 Steel - Scribed	Loss of adhesion less than 15 mm from scribe after 500 hrs
	- Unscribed	No loss of adhesion
Chemical Resistance*	Washing Agents (on wirework)	Good
Adhesion	PSL, TM 19	A-1



Resistance to Staining	Carrot Juice	Good
	Tomato Juice	Good
	Blackcurrant Juice	Good
	Eosin Dye	Good
	Beetroot Juice	Good
Safe Working Temperature	(In air)	100°C max

*The results given are for full immersion in the chemicals for a prolonged period of time. The coating is resistant to splashes and short-term contact of most chemicals. Further technical advice may be obtained from Plascoat concerning the effects of particular chemicals or mixtures.

Disclaimer

The information provided herein corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since Plascoat cannot anticipate all variations in actual end-use conditions Plascoat makes no warranties and assumes no liability in connection with any of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights.

Copyright 2019, Axalta Coating Systems, LLC and all affiliates. The Axalta logo, Axalta™, Axalta Coating Systems™, Plascoat® and all products denoted with ™ or ® are trademarks or registered trademarks of Axalta Coating Systems, LLC and its affiliates. Axalta trademarks may not be used in connection with any product or service that is not an Axalta product or service.

*Plascoat is an Axalta Coating Systems company.
Plascoat is an EU registered trade name*