

Plascoat® PPA 665

Performance Polymer Alloy Coating

03/2017

General description

Plascoat PPA 665 is a polyolefin based polymer alloy, developed for application by rotational lining to metal cylinders to give a protective coating with excellent resistance to aqueous environments, including the foaming agent A.F.F.F. and is also resistant to up to 30% Antifreeze (ethylene glycol). When correctly applied, the coating gives excellent adhesion without the need for a separate adhesive primer and can withstand steady or cycling temperatures between minus 40°C and +65°C. Plascoat PPA 665 coated cylinders meet requirements of EN3.

PPA 665 is available in grey and black.

Typical uses

The internal lining of portable fire extinguishers.

Typical properties of the powder

Coverage (100% efficiency)	1.6 m ² /kg at 600 microns
Particle Size	Less than 355 microns
Bulk Density (at rest)	0.35 g/cm ³
Packaging	20 kg paper sacks

Handling and storage

Stored in a clean dry area at 10-30°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 PPA 665 is supplied as a finely divided powder. While there are no known health hazards associated with PPA 665, 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. Should the coating be required for contact with food or potable water, further details should be obtained from Plascoat.

Guide to typical coating conditions

Pre-treatment:

Degrease - alkaline/solvent degrease
 Shot blast to Swedish standard SA 2½ to 3 or iron phosphate.

Application

Typical application using Plascoat DHSC lining machine on 3 mm steel cylinder:
 Preheat 1.75 minutes
 (Metal Temperature between 260°C and 300°C)
 Dwell 30 seconds
 Post-heat 30 seconds

The typical shot weight for a 9 Litre cylinder is 430 g. This produces a coating of thickness of around 1mm. These values are only intended as a guide and will vary according to metal thickness and type. The coating thickness must range between 300 and 1200 microns. Thicknesses outside the recommended range may be detrimental to the properties of the coating.

Typical properties of the material

Specific Gravity*		1.03 g/cm ³
Tensile Strength	ISO 527	11 MPa
Elongation at Break	ISO 527	40%
Hardness	Shore A	95
	Shore D	66
Vicat Softening Point	ISO 306	80°C
Water Absorption	48 hrs at 50°C	Less than 0.01%
Environmental Stress Cracking	ASTM D1693	Greater than 2000 hrs

*These values may vary from colour to colour

Typical properties of the coating

Recommended Coating Thickness		500 to 1200 microns
Appearance		Smooth, semi-matt
Impact Strength	Gardner (drop weight), Direct 23°C ISO 6272	1.32 Joules
Abrasion	Taber ASTM D4060/84 H18, 500g load, 1000 cycles	80 mg weight loss
	CS17, 500g load, 1000 cycles	30 mg weight loss
Salt Spray	ISO 9227	Results after 1000 hours: Adhesion lost up to 10mm from scribe mark. Less than 0.5mm under film corrosion. (A phosphated substrate will improve corrosion resistance).
Chemical Resistance	- Dilute Acids	Good
	- Dilute Alkali	Good
	- Salts	Good (except peroxides)
	- Solvents	Poor
Safe Working Temperature	Continuous in air	60°C max



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*

For Europe:
Plascoat Europe BV
The Netherlands
+31 (0) 181458888
plascoat-salesnl@axalta.com

For UK and Overseas:
Plascoat Systems Ltd
United Kingdom
+44 (0) 1252 733777
plascoat-salesuk@axalta.com

For US:
Plascoat Corp.
United States of America
+1 (844) 752-7262
plascoat-salesus@axalta.com