

# Plascoat PPA 665



## 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 priming coat and can withstand steady or cycling temperatures between -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 <sup>2</sup> /Kg at 600 microns
Particle Size	Less than 355 microns
Bulk Density (at rest)	0.35 g/cm <sup>3</sup>
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

Shotblast to Swedish standard SA 2½ to 3 or iron phosphate.

### Application

Typical application using Plascoat DHSC lining machine on 3mm steel cylinder:

Preheat 1.75 minutes

(Metal Temperature between 260°C and 300°C)

Dwell 30 seconds

Postheat 30 seconds

The typical shot weight for a 9 Litre cylinder is 430g. 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 <sup>3</sup>
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

**Quality**

Plascoat is committed to the manufacture and supply of a wide range of thermoplastic coating powders. This service is backed by the unrivalled experience of over 60 years of powder coating application. With a policy of continuous improvement to its range of products, Plascoat reserves the right to alter or amend any item. Stringent quality control procedures are carried out at every relevant stage of manufacture and Plascoat operates a quality management system approved by BSI in accordance with ISO 9001:2008.

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

## Disclaimer

The information given here is, to the best of our knowledge, true and accurate.

Product and item design, pre-treatment, coating conditions, quality assurance and conditions of product end use are among the factors that affect performance of the coated products and are outside Plascoat control.

Conditions under which our materials may be used are beyond our control. The suitability for application and performance of finished goods coated with Plascoat material is the sole responsibility of the customer and end user.

Plascoat expressly denies specific or implied warranties including warranties for fitness for a particular use or purpose.

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