Plascoat® PPA 665XL

Performance Polymer Alloy Coating

07/2010

General description

Building on twenty years of experience, PPA 665XL has been designed for the lining of portable fire extinguishers. PPA 665XL offers all the benefits of traditional Plascoat grades for this market whilst having a wider, and therefore, more forgiving coating window.

Typical uses

Fire extinguisher lining.

Typical properties of the powder

Coverage (100% efficiency)	2.15 m^2/kg at 500 microns 1.08 m^2/kg at 1000 microns
Particle Size	95% less than 315 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 10-25°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 PPA 665XL is supplied as a finely divided powder. While there are no known health hazards associated with PPA 665XL, 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.

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)1252733777
plascoat-salesuk@axalta.com

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

Application

Typical application using Plascoat DHSC lining machine on 3 mm steel cylinder: (Note that these conditions may not necessarily produce a perfect lining on other manufacturers equipment)

Pre-heat time: 90 seconds (will vary with metal thickness)
Typical Metal Temperature between 220°C and 280°C (The Grey 674 flows out better than the Black 700 and it is normally necessary to use temperatures 20 to 30°C lower when using the Grey 674).
Dwell Time: 30 seconds
Post-heat Time: 30 seconds
These values are only intended as a guide and will vary according to metal thickness and type
If iron phosphate is being used the pre-heat temperature should be kept below 260° C.

The typical shot weight for a 9 litres cylinder is 380 to 430g depending on the cylinder design. This produces a coating thickness of around 1 mm.
Thicknesses outside the recommended range (500 to 1200 microns) may be detrimental to the properties of the coating. It is not necessary for the lining to be perfectly smooth after the lining stage. This is because the lining will flow out during the curing of the outer coating. We would recommend this as best coating practice in order to reduce the risk of degradation of the lining.
Note that the adhesion of PPA 665 XL improves after the curing stage for the outer coating and dramatically during the first 24 hours.

Typical properties of the material

Specific Gravity*		0.93 g/cm^3
Tensile Strength	ISO 527	10 MPa
Elongation at Break	ISO 527	190%
Hardness	Shore A Shore D	95 50
Vicat Softening Point	ISO 306	87ºC
Environmental Stress Cracking	ASTM D1693	Greater than 2000 hrs
Water absorption	ASTM D570	<0.15%

**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 23ºC ISO 6272	2 Joules
Abrasion	Taber ASTM D4060/84 H18, 500g load, 1000 cycles	50 mg weight loss
Salt Spray	ISO 9227 Steel - Scribed	Results after 500 hours Loss of adhesion less than 10 mm from scribe. Under film corrosion <0.5 mm (A phosphated substrate will improve corrosion resistance)
Compound Corrosion Test	Nissan Test Specification M0158 Cycle CCT-1 5% salt spray at 35°C for 4 hours Dry at max 30% R.H at 60°C for 2 hours	Results after 1000 hours Loss of adhesion less than 4 mm from scribe. Under film corrosion <0.2mm

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)1252733777
plascoat-salesuk@axalta.com

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

	Humidity at 95% R.H. at 50°C for 2 hours Steel - Scribed	(A phosphated substrate will improve corrosion resistance)
Chemical Resistance*	- Dilute Acids 60°C - Dilute Alkali 60°C - Salts (except peroxides) 60°C - Solvents 23°C	Good Good Good Poor
Adhesion	PSL, TM19	A-1
Safe Working Temperature	Continuous in air	65ºC max

**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.

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)1252733777
plascoat-salesuk@axalta.com

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

www.plascoat.com