



Amerthane 855

Solvent Free Poly Urethane

Product Data/ Application Instructions

- Solvent Free Coating for the external of pipelines and buried underground tanks
- Fast curing
- Excellent corrosion resistance
- Good water resistance
- Good Abrasion resistance
- Good impact resistance

Typical Uses

Amerthane 855 is a solvent free, high performance coating suitable as an external lining pipelines and (underground) tanks. Amerthane 855 is an excellent barrier coat, providing longterm resistance to corrosion even under aggressive conditions.

Physical Data

Finish	gloss
Colour	Blue, grey, redbrown
Components	2
Mixing ratio (by volume)	
resin	4 parts
cure	1 parts
Curing mechanism	chemical reaction between components
Volume solids	100%
VOC	2 g/l (Directive 1999/13/EC, SED)
Dry film thickness	1500 µm
Number of coats	1
Calculated coverage	0.7 m ² /l at 1500 µm
Allow for application losses, surface irregularities, etc.	
Specific gravity	1.7 kg/l
Temp resistance.....	°C °F
Dry exposure.....	120 248
Flash points (Closed Cup). °C °F	
resin	> 100 >212
cure	> 65 >149
Thinner 91-88	> 26 79

Amerthane 855

Application Data Summary

Amerthane 855 is a fast dry solvent free poly urethane coating developed as a highly resistant coating protecting the interiors and exteriors of pipelines and tanks. For the interior use it provides excellent resistance to oils, fuel and industrial water or sewage. As exterior protection the product has excellent impact and abrasion resistance. It also has excellent resistance to cathodic disbondment. To obtain the maximum performance for which Amerthane 855 is formulated, strict adherence to all application instructions, precautions, conditions and limitations is necessary. If conditions exist that are not within the requirements or limitations described, consult your PPG representative.

Surface Preparation

Coating performance is in general, proportional to the degree of surface preparation. Surface must be clean, dry, undamaged and free of all contaminants prior to coating. Welds should be continuous with no overlapping steel surfaces or rough edges. Remove all weld spatter. STEEL - remove all loose rust, dirt, grease or other contaminants by one of the following depending on the degree of cleanliness required in line with ISO 8501-1 Sa 2½ blasting.

NOTE: Blast to achieve a minimum of 50 µm as determined with *Testex Tape* or similar instrument. Remove abrasive residues and dust from surface. Increase coating thickness if profile is greater than 75 µm.

IMPORTANT - Apply Amerthane 855 as soon as possible after surface preparation to prevent any contamination. Do not leave blasted steel uncoated overnight. In case of contamination, remove contaminants. Spot blast steel if needed.

REPAIR: Prepare damaged areas to original surface preparation specifications, feathering edges of intact coating. Thoroughly remove dust or abrasive residue before touch up.

Application Equipment

The following equipment is listed as a guide and suitable equipment from other manufacturers may be used. Adjustments of pressure and change of tip size may be needed to obtain the proper spray characteristics.

Application Data

Substrate steel
Application methods heated two-component metering
airless spray

Environmental conditions (during application and drying)

Air temperature	5 to 50°C	41 to 122°F
Surface temperature	5 to 60°C	41 to 140°F
Material temperature.....	50 to 65°C	122 to 149°F

Minimum temperature to obtain satisfactory cure is 10°C/50°F. Surface temperature must be at least 3°C/5°F above the dew point to prevent moisture condensation on the surface. Never apply coatings under adverse environmental conditions.

Potlife" (at 60°C/140°F)	Not applicable		
Drying times (in hours) °C/°F	10/50	20/68	30/86
dry to touch.....	1.5	½	¼
dry through	3	1	½
Full cure (days).....	8	4	2

Potlife and drying times are dependent on temperature and quantities mixed.

Thinner	not recommended
Cleaner.....	Thinner 91-88

Amerthane 855

AIRLESS SPRAY - Amerthane 855 is normally applied by 2-component metering mixing and spraying equipment. Both components should be heated to approximately 50-65°C (122-149°F). Use 0.58 to 0.81 mm (0.023-0.032 inch) tip sizes. Material pressure must be 150 bars.

NOTE: Airless spray equipment with a fixed 4:1 volume ratio is also acceptable. Also in this case the mixing ratio should be controlled, and material feed pumps should be operating at similar pressures. For pipe coating plural component guns with airless nozzle as well as air driven turbo-bell units may be used.

MIXER - Use a power mixer to homogenise the resin and the cure before circulating through plural component spray unit.

Application Procedure

1. Flush equipment with recommended cleaner before use.
 2. Heat resin and cure components separately to 50-60°C (122-140°F) and place in pressure pots or under supply pumps. **DO NOT USE ANY THINNER.**
 3. Adjust equipment to provide 4:1 mixing ratio for resin to cure in volume ratio.
 4. Apply a heavy, wet coat in even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays. Immediately follow with additional cross-spray passes to obtain a continuous film without bare spots, pinholes or holidays and to build-up thickness to the specified range.
 5. Wet film thickness will be identical to ultimate dry film thickness. Recommended or specified minimum film thickness will depend on product use or specified coating standard.
 6. Check thickness of dry coating with a non destructive dry film thickness gauge, such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed.
 8. Plural component equipment does not normally require complete cleaning. If necessary clean separate components with no other than Thinner 91-88 cleaner.
- # NOTE: Amerthane 855 when mixed and held in containers over 0.5 litre reacts rapidly, solidifying while generating excessive heat. Once applied to the substrate at recommended thickness, curing takes place at normal rates.

Shipping Data

Packaging
resin 20 l in 20 l can
cure 20 l in 20 l can

Shipping weight

Shelf life 1 year from shipment when stored indoors in unopened, original containers at 5 to 40°C (41- 104°F).

Amerthane 855

Safety

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty

PPG warrants its products to be free from defects in material and workmanship. PPG's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at PPG's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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