

# OptiThane 421

Optima Coatings OptiThane 421 is a two-component acrylic polyurethane based protective coating that forms an attractive high gloss, re-coatable, colourfast, abrasion and weather resistant topcoat for metal and concrete.

**Colours:** Various pastel and deep shaded colours are available

### PRODUCT USES

- High performance finish for both maintenance and new construction.
- Recommended as a finishing coat for piping, exteriors of tanks, structural steel and concrete surfaces where there is a requirement for UV protection and weather-, chemical- and abrasion-resistance.
- Can be used in a wide variety of industrial environments including offshore structures.
- Can also be used in a marine, institutional or waste treatment facility where a chemical resistant and attractive coating is required.

### ADVANTAGES

- Exhibits a durable finish with an attractive decorative appearance.
- Excellent gloss and color retention.
- Good weather resistance and flexibility.
- Excellent abrasion resistance.
- Good chemical resistance against acids, alkalis and solvents.
- Excellent resistance to salt/water.

### THEORETICAL COVERAGE

- 11m<sup>2</sup> per liter per coat @ a DFT of 50 microns.

### SURFACE PREPARATION

Ensure all substrates are thoroughly clean, sound, dry and free from any contaminants such as dirt, rust, salt, algae and grease.

- **Metals:** Treat with a suitable corrosion inhibiting primer.
- **Concrete:** Ensure surface has aged a minimum of 28 days and has dried to <10% moisture. Treat with a water-based epoxy primer.

**APPLICATION**

Mix Ratio: 4 parts of Part A (Base) to 1 part of Part B (Curing Agent) by volume.

- Combine the entire contents of Part B (Curing Agent) with the Part A (Base) and mix thoroughly with a power agitator.
- Always mix the entire pack at once unless you can accurately measure off smaller volumes.
- Once the unit has been mixed it must all be used within the pot life.
- Working Pot Life:
  - 5°C - 24 hours
  - 10°C - 20 hours
  - 20°C - 16 hours
  - 30°C - 8 hours
- The pot life has expired when the material is too viscous to apply or contains skin or solids. Protect from moisture to maintain a good pot life.
- Thinning: Thin with up to 10% of Optima Coatings Xylene. Do not use Xylene blends that contain alcohols.
- Spray application: Use a 50% overlap with each pass to ensure a consistent finish.  
Airless Equipment: Use a pump ratio of >30:1. A >10mm I.D. hose and a tip size of 0.33 – 0.38mm. Output pressure: 145-159 Bar.  
Filter size: 60-100 mesh.
- Roller application: A short hair mohair roller or fine foam roller are recommended.
- Brush application: Use a natural bristle brush.
- Rain: Rain or surface moisture will reduce gloss if the surface is exposed within 3 hours at 25°C, or longer at lower temperatures.

**CLEANING**

- Clean all equipment with Optima Coatings Xylene or MEK .

**SAFETY PRECAUTIONS**

- Ensure adequate ventilation: If respiratory problems occur remove affected person to fresh air.
- Stains skin: If contact occurs, wash well with water.
- Eye contact: Flush immediately with fresh water for 5 minutes and contact a physician.
- Neutralize with methylated spirits or other alcohols.
- Flammable: Protect from sources of ignition and extreme heat.

**TECHNICAL DATA**

Pack size:	Material is supplied in two containers which when mixed make up a pack of 5 liters			
Volume Solids:	55% +_2%			
Dry film thickness:	40 - 80 Microns			
Wet film thickness:	70 – 150 Microns			
Drying time is temperature, humidity, and film thickness dependent				
Drying Time @ 60 Microns:	5°C	10°C	20°C	30°C
Surface Dry:	50 min	30 min	20 min	10 min
Hard Dry:	12 hrs	8 hrs	6 hrs	4 hrs
Minimum overcoating time:	8 hrs	6 hrs	4 hrs	2 hrs
Flash Point:	Base-18°C Curing Agent-29°C			
Surface Temperature:	Minimum -5°C			
Relative Humidity:	Maximum 85% R.H.			

*Technical details above are provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards using raw materials of superior quality. Consequently we believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that the user conduct their own suitability tests before use. To retain sheen and colour consistency of your paint, always make sure that the batch numbers are the same on all paint containers that you purchase.*

*Updated: March 2013 (this supersedes all previous publications)*