



ZPU 33

TECHNICAL DATA SHEET

ZPU 33 Polyurethane Topcoat

Product description

ZPU 33 Topcoat is a two-part polyurethane coating, which is specially formulated to be a non-isocyanate coating. ZPU 33 Top Coat is designed to be used in outdoor and indoor applications requiring high durability in a variety of conditions.

Typical applications

Mining equipment, marine and offshore environments, structural steel, towers, refineries, power plants, pipelines, pumps, generators, bridges, buildings, storage tanks (External), chemical plants, and general structural engineering. Highly suitable for use in environmental conditions with a PH of 4 to 13.

Product specifications

• Solids by Volume	64% (+/- 1%)
• SG	1.22 (+/- 0.1)
• D-Shore hardness	85 - 91
• Maximum temperature	125°C
• PH tolerance	4 to 13
• Adhesion	up to 15 MPa (ASTM D4541)
• VOC	320 grams per litre
• Flash Point	27°C ASTM D93
• Colour	Standard colour range
• Theoretical coverage per 5 liter	64 m ² @ 50µm DFT

Surface preparation

Ensure all surfaces are assessed and treated in accordance with SSPC-SP1 solvent cleaning standards.

Surface to be free of oil, grease, dust, dirt, and any other foreign matter or contaminants.

Non-visible salt tolerance to be less than 7µg/cm² (recommended 5 µg/cm²)

Overcoating time on Zayit SS3 and Zayit SS3 GF is not less than 5 hours and not exceeding 48 hours @ 20°C.

Optimum coating performance will only be achieved with the correct surface preparation. If in doubt, contact the technical division for a protocol of application.

Application

Application methodology

- Brush,
- Short hair or sponge roller.
- Gravity fed spray gun, nozzle size 1.8 - 3.5 mm.
- Pressure pot – Self agitating recommended, nozzle size 1.8 - 3.5 mm
- Airless – Nozzle size 0.15 to 0.25 thou - minimum pump ratio 40:1

Compressed Air

- Use compressor with adequate pressure and volume.
- Air to be free of oil and moisture.
- Water and oil separators/traps to be installed on all airlines at the appropriate distances. (Recommended 15 metres from the compressor)
- Follow ASTM D 4285 standards. (Blotter test)

Mixing

Ratio by weight

Part A	11
Part B	1

Measure the weight of part A on a scale. Divide this value by 11 to achieve the **weight** of hardener required.

Mixing methodology

Open the container and add the contents of Part B to Part A. Mix using a standard 50 to 75mm paint mixer. Mix for 3 to 5 minutes until a homogeneous coating is obtained. The coating is exothermic when parts A and B are mixed. Note. Breaking of kits is not recommended.

Pot Life

45 minutes at 21°C

May be used until coating becomes too viscous to spray or apply. **Do not add** solvent to extend the pot life.

Solvent

ZPU 33 Solvent - If required add 2% to 10% of solvent to the container to adjust the viscosity for spray application. Test before use.

Environmental conditions

Application temperature	10°C to 40°C
Application humidity	< 85°C
Substrate temperature	> 3°C above dew point.

Curing time

Touch dry	4 hours at 25°C
Transport ready	24 hours at 25°C
Full cure	8 days at 25°C

Drying and curing time will depend on temperature, relative humidity, and coating thickness.

Over coating time

4 hours or until touch dry.

Touch dry – the state of drying when slight finger pressure does not leave any imprint or reveal any tackiness.

Coating thickness

Recommended application thickness 50 to 125 µm DFT

Packaging

Coating – ZPU 33 Part A.	5 litre Container.
Hardener – ZPU 33 Part B.	850 grams per container.
Solvent – ZPU 33.	1 Litre container.
Solvent – ZPU 33.	5 Litre container.

Storage

Keep sealed containers in a well-ventilated cool dry area as per local authority, regional and international regulations.

Keep away from direct sunlight, heat, and acids.

Avoid excessive vibration.

Storage temp:	5°C to 30°C
Shelf-life:	12 months from date of manufacture, if unopened and stored correctly.

Disposal

Dispose of contents and or containers to an approved waste disposal plant in accordance with local, regional, national, and international regulations.

Health and Safety

Please ensure good practice is always observed. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read and understood the detailed Safety Data Sheet.

Legal Notice:

The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine if the product is suitable for use. Zayit Coatings CC accepts no liability arising out of the use of this information or the product described herein.