Polyvion®

Product Name : Polyvion® WAD U90

CAS number : Mixture

Chemical Type : Hydrophobically Modified Polyurethane Thickener (HEUR, waterborne)

Business Unit : Polyurethane

1. Product Description

Polyvion® WAD U90 is a high-efficiency, non-ionic polyurethane associative thickener designed to build low-shear viscosity and impart strong pseudoplastic (thixotropic) behavior in waterborne systems. It delivers effective structure development with minimal impact on water resistance and gloss. The product is formulated with low odor, and is free of APEO and organotin, making it suitable for modern low-VOC waterborne coatings.

2. Typical Applications

Polyvion® WAD U90 is typically used in:

- Architectural waterborne coatings
- Industrial waterborne coatings
- Textile coatings
- Waterborne systems requiring strong low-shear viscosity and thixotropy

Actual suitability and performance depend on binder system, formulation design, and processing conditions applied by the user.

3. Key Characteristics (Typical)

Property	Unit	Typical Value	Test Method
Physical state	–	Liquid	Visual
Appearance	–	Light milky to pale yellow	Visual
Solid content	wt%	~39–41	Internal Method (150 °C,

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Property	Unit	Typical Value	Test Method
pH (25 °C)	–	~6.0–7.0	GB 6920
Viscosity (25 °C)	mPa·s	~30,000–38,000	Brookfield RV, #5 / 8 rpm
Density (25 °C)	g/cm³	~1.04 ± 0.05	GB/T 4472
Chemical nature	–	Hydrophobically modified	–

Note: Typical values are indicative only and do not constitute a specification.

4. Recommended Use

Polyvion® WAD U90 can be added directly during paint make-up or pre-diluted with water or compatible glycol ether solvents before addition.

A typical dosage range is 0.1–2.0 wt% (as supplied, based on total formulation), depending on binder type and target rheology.

Due to formulation sensitivity, the exact addition level should be determined by pre-formulation trials.

Polyvion® WAD U90 is effective across a broad pH range and is compatible with common waterborne binder systems.

5. Packaging & Logistics

Polyvion® WAD U90 is supplied in standard industrial packaging such as plastic drums or IBCs, subject to confirmation at the quotation stage.

The product is offered under standard Incoterms such as FOB, CFR, or CIF, as specified in the quotation.

Indicative lead times are provided at quotation and confirmed upon order acceptance.

6. Handling & Storage

Polyvion® WAD U90 should be stored in its original, tightly closed containers in a cool, dry place, protected from direct sunlight.

Recommended storage temperature: 5–35 °C. The product must be protected from freezing.

Under recommended storage conditions, the product maintains stability for at least 12 months from the date of manufacture. Performance evaluation is recommended if stored beyond this period. Refer to the SDS for detailed handling and safety instructions.

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