

Amino-Functional Polydimethylsiloxane 60%

High-Concentration Non-Ionic Micro-Emulsion for Premium Textile & Industrial Finishing

60% ACTIVE CONCENTRATE

CHEMICAL FAMILY	ACTIVE CONTENT	IONIC NATURE	PRIMARY APPLICATION
Amino Silicone Emulsion	60% ± 1.5%	Non-ionic / Weak Cationic	Textile Softener & Shield

1. PRODUCT DESCRIPTION

PURITY+ Amino-functional Polydimethylsiloxane 60% Emulsion is a high-performance, premium grade reactive silicone fluid emulsion engineered specifically for textile finishing, fiber lubrication, and surface protection. Formulated with side-chain amino-modified polydimethylsiloxane, this 60% active concentrate rapidly binds to cellulosic, synthetic, and blended fibers, delivering an extraordinarily soft, silky, and elastic hand-feel with high shear stability and non-yellowing characteristics.

2. KEY FEATURES & PERFORMANCE BENEFITS

- **Ultra-Soft Hand Feel:** Imparts a velvety, smooth, and luxurious handle to cotton, polyester, denim, and knitwear.
- **Fiber Elasticity & Drape:** Enhances fabric recovery, shape retention, wrinkle resistance, and drapeability.
- **Non-Yellowing Formula:** Specially modified amino content minimizes yellowing under high-temperature curing.
- **High Dilution Stability:** Outstanding resistance to shear, alkali, and temperature; compatible with finishing baths.
- **Improved Sewability:** Reduces needle cutting, fiber-to-fiber friction, and static charge accumulation during manufacturing.
- **Eco-Friendly & Safe:** Free from APEO, NPEO, and heavy metals; compliant with international eco-textile standards.

3. PHYSICAL & CHEMICAL PROPERTIES

PARAMETER	STANDARD SPECIFICATION	TEST METHOD / UNIT
Appearance	Milky white to translucent liquid	Visual Inspection
Chemical Character	Amino-functional Polydimethylsiloxane	FTIR Standard
Active Ingredient Content	60.0% ± 1.5%	Gravimetric (105°C / 2 hrs)
pH Value (Direct, 25°C)	5.0 – 6.5	ISO 4316 / pH Meter
Viscosity (25°C)	500 – 2,500 mPa·s (cPs)	Brookfield RVT, Spindle 2
Amine Value	0.30 – 0.45 mmol/g	Titration Method
Emulsifier System	Non-ionic	Internal Standard
Solubility / Dilutability	Dilutability in cold water in all proportions	Manual Dispersion Test

4. APPLICATIONS & RECOMMENDED DOSAGE

PURITY+ Amino-functional Polydimethylsiloxane 60% is versatile across multiple application methods. Dilute with cold water prior to bath addition under mild agitation.

Dilution Guideline

For standard textile padding and exhaust procedures, it is recommended to pre-dilute the 60% active concentrate with soft water to a 15–20% working emulsion prior to adding to the treatment bath.

APPLICATION METHOD	RECOMMENDED WORKING DOSAGE	PROCESS CONDITIONS
Padding Method (Woven / Denim)	10 – 30 g/L (of 15–20% diluted emulsion)	Pick-up: 60–80%, Dry/Cur: 130–160°C
Exhaustion Method (Knits / Garments)	1.0% – 3.0% o.w.f. (on weight of fabric)	pH: 5.0–5.5, Temp: 40–45°C, Time: 20–30 min
Mold Release & Surface Coating	Dilute 1:5 to 1:10 with water	Spray or brush coating for rubber/plastics

5. PACKAGING, STORAGE & HANDLING

Available Packaging:

- 1 Liter HDPE Bottle
- 5 Liter HDPE Can
- 20 Liter Drum
- 50 Liter / 200 Liter Industrial Drum

Storage & Shelf Life:

- Store in original sealed containers between 5°C and 35°C.
- Protect from freezing and direct exposure to intense sunlight.
- Shelf Life: 12 months from manufacturing date under proper storage.

PURITY+ OFFICIAL STORE / PURITY CHEMICALS

Product / Technical Support: +92 340 400 5870

Official Website: <https://purity.plus> | Direct URL: purity.plus/product/amino-silicone-emulsion/

Quality Assurance ISO 9001:2015

Environmentally Safe Formulation

Made for High-Performance Industrial Use

Disclaimer: The information provided in this Technical Data Sheet is based on our current knowledge and laboratory trials. It is intended as a general guide for handling and application. Users should conduct their own trials to determine the suitability of the product for their specific end use. Purity Plus makes no warranty expressed or implied regarding performance under unmonitored conditions.