TECHNICAL DATA SHEET

HSR-618Y Solvent-Based Polyurethane Spray Adhesive

Strong adhesion | Flexible bond | Matte finish

1. Product overview

HSR-618Y is a solvent-based polyurethane resin adhesive designed for bonding fabrics, foam, leather, metal hardware, plastics and TPU films. After curing, it provides strong adhesion, good flexibility and resistance to temperature, water and solvents. The cured surface has a matte finish.

2. Typical properties

Appearance	Pale-yellow, transparent viscous liquid
Solids content	35 ± 2% (as stated in the original TDS; confirmation required)
Viscosity	150 ± 50 cP at 25°C; No. 1 spindle / 30 rpm
Spray distance	25-35 cm
Flash-off before bonding	1-3 minutes; the precautions section specifies 1-2 minutes before applying pressure
Processing window	Complete bonding within 3-5 minutes after spraying at room temperature
Curing	Approximately 70-80% cured after 12 hours; assess final properties after 2-3 days
Packaging / shelf life	20 kg round steel drum / 6 months, sealed at room temperature

3. Application procedure

Preparation: Open doors and windows or install suitable high-capacity extraction to ensure good ventilation. Check the spray gun before use; eliminate blockages, accumulated water and moisture in the air line.

Surface preparation: Clean the bonding surfaces thoroughly. Remove oil, dust and other contamination; substrates must be dry.

Spraying: Hold the nozzle 25-35 cm from the surface. Adjust air pressure and adhesive output according to actual bonding results. Use relatively low pressure and low output to produce a fine, dense mist.

Coverage: Move the spray gun evenly. Apply a uniform layer without excessive thickness, pooling or missed areas.

Bonding: Allow 1-3 minutes of flash-off after spraying, then join the materials and apply suitable pressure. Complete processing within 3-5 minutes at room temperature. Align the parts accurately on the first attempt.

3. Application procedure (continued)

Curing: Cure time depends on temperature and humidity. The original TDS states approximately 70-80% cure after 12 hours of bonding; evaluate optimal physical properties after 2-3 days. Prepared or diluted adhesive is less stable and should be used promptly on the same day.

Equipment cleaning: If the spray gun will remain unused for an extended period, clean or soak it using the supplier's DH-50 thinner.

4. Dilution and handling precautions

Solvent selection: Use a suitable PU solvent with water content below 0.05%. Do not use alcohol-type solvents; the source lists IPA, BCS and ECS as examples.

Mixing ratio: The original TDS specifies adhesive : thinner = 1 : 0.5-1.0. The ratio basis is not stated and must be confirmed before use. Stir or shake thoroughly.

Prepared adhesive: Store in a tightly sealed metal container. If left open, the mixture may thicken within 2-3 hours and become gel-like and unusable.

Moisture control: Reseal the drum immediately after dispensing. Minimize repeated opening because atmospheric moisture may increase viscosity or cause hardening.

Viscosity increase: If viscosity rises slightly, a small amount of suitable solvent may restore processability. If it cannot be thinned, partial crosslinking may have occurred; do not use the material.

Bonding precautions: Spray a fine, uniform mist onto dry, clean, oil-free surfaces. The source recommends 1-2 minutes of flash-off before applying pressure.

Cold or humid conditions: For use between -10°C and +10°C, or in rainy or humid weather, determine the appropriate bonding time. The source suggests adjusting flash-off or using controlled heating. These are source instructions, not a validated application-temperature range. Check surface preparation and consult the supplier for process changes.

Process changes: Contact the supplier promptly if changes in weather or other conditions affect application, processing or bond quality.

5. Storage and packaging

Store in a cool, dry place away from direct sunlight. Shelf life: 6 months in tightly sealed packaging at room temperature. Packaging: 20 kg per round steel drum.

6. Supplier and document notes

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Data confirmation: The original TDS states solids content of 35 ± 2%; the current SDS lists prepolymer content of 40 ± 2%. These values have not been reconciled. Confirm the applicable product specification before external release. The dilution-ratio basis is also unspecified.

This English TDS is based on the supplied Chinese document. Information is provided for reference; processing materials and conditions vary and are outside the supplier's control. Customers should perform trials and on-site testing to verify suitability. Consult the SDS for safety information.