Technical Data Sheet (TDS)

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LPT1205 Rubber and Metal Adhesive

Product Use:

LPT1205 Adhesive is used as a single-coat adhesive to bond nitrile rubber with metal. It serves as a primer adhesive for bonding various metals, plastics, and rubbers. It can be used in combination with topcoat adhesives, such as LPT1220, to enhance adhesive performance and environmental resistance.

Product Features:

- General-purpose primer adhesive.
- Excellent bonding performance with various metals, including steel, stainless steel, aluminum, iron, copper, and aluminum alloys.
- Resistant to water, salt spray, chemicals, high temperatures, oils, solvents, etc., offering good corrosion resistance and environmental durability.
- Suitable for injection molding vulcanization processes.
- Rust prevention properties.
- Long open time after application.

Product Performance:

- Appearance: Grey-black viscous liquid
- Viscosity: 70~200 (at 25°C, Standard Atmospheric Pressure)
- Solid Content: 22~28% (by weight)
- Diluent: Methyl isobutyl ketone (MIBK) or methyl ethyl ketone (MEK)

Instructions for Use:

Surface Preparation:

- After mechanical treatment (sandblasting) of the metal bonding surface, degrease or chemically treat it to remove grease, rust, or other oxide layers.
- If using steel grit (or steel balls) to treat iron-containing metals such as steel or cast iron, the treated surface must be used before oxidation or rust reappears.
- For metals such as stainless steel, aluminum, brass, and zinc treated with quartz sand, the adhesive must be applied within 90 minutes after surface treatment.

Mixing:

- The product must be thoroughly mixed before use to ensure uniform consistency.

Adhesive Application:

- Apply by brushing or roller coating, with the typical dry film thickness set at 5.0 to 10.2 μm. After applying a uniform coat to the metal surface, allow it to air dry at room temperature for 60 minutes. If possible, increase the room temperature or heat the metal to enhance the drying effect.

Storage:

- The coated workpiece must be stored properly, isolated from dust, oil, and moisture. It can be stored for up to one month.

Curing:

- When the coated workpiece is placed in a heated mold, quickly fill with rubber and close the mold to prevent premature curing of the adhesive, which would cause it to lose effectiveness. This ensures that both the adhesive and rubber cure simultaneously, achieving optimal bonding performance.

Curing Conditions:

- Curing time should be consistent with the rubber curing time.

Typical Data:

Mediums	Test Conditions:	Failure Mode:
Gasoline	Room temperature (20 days)	100% (R)
Turbine Oil	150°C (20 hours)	100%(R)

LPT1205 Nitrile Rubber and Steel Plate Weathering Resistance Test

Storage and Shelf Life:

Store in a sealed container in a cool, dry place. The shelf life is 12 months when kept in its original packaging and under normal temperature conditions.

Precautions:

- Avoid using in environments with temperatures below 15°C or humidity levels above 90%.
- Ensure the bonding surface is dry and free of moisture before applying.
- Avoid contact with skin and eyes before curing. In case of eye contact, rinse immediately with plenty of water and seek medical attention.
- This product is flammable; store and handle it according to flammable material guidelines. Keep away from open flames.
- Ensure good ventilation at the work site.
- Keep out of reach of children.