



# TECHNICAL LEAFLET

SUNSTAR ENGINEERING INC.

## Two-Part Acrylic Polymer Emulsion-Based Adhesive PENGUIN BOND # 1230A

**Penguin Bond # 1230A** is an acrylic polymer emulsion-based and two-part spray mixing type adhesive for direct bonding of polyurethane foam silencer to car roof.

### a). Characteristics

1. By spray mixing with hardener, emulsion has good initial bond strength
2. At least one of the materials bonded must be porous to allow water evaporation after installation
3. Pressure sensitive and high heat resistance bonding because of partially crosslinked with hardener
4. Airless spray mixing hand gun is provided

### b). Applications

1. Special dual nozzle airless spray gun is required for spray mix application
2. Mixing condition and mixing ratio of hardener and base will be checked by pressure gauge and color change by visual inspection.
3. One side spray coating of adhesive on urethane foam silencer is required
4. To get suitable spray pattern and proper mixing; the right spray tip need to be used. Graco No. 163-419 (for base) and No. 163-412 (for hardener) are recommended as standard tips.

### c). Physical Properties

	<u>Base</u>	<u>Hardener</u>
Appearance	: Emulsion	Red Clear Liquid
Viscosity (Cps at 20°C)	: 4000	-
Specific Gravity	: 1.03	1.02
Non-Volatile Content (%)	: 53	12
PH	: 7.4	7.5
Maron Value	: 0.1	-

Min Film Formation Temperature : -2

Bonding polyurethane foam roof silencer to painted panel. 250g/m<sup>2</sup> of adhesive is sprayed onto silencer with a mixing ratio of base to hardener 100:8 by weight.

- \* Initial (Open time 0.5 min, Set time 5 min) : 0.6kg/25mm
- \* Initial (RT, 3 days) : 1.5
- \* Heat Aging (RT 3 days + 80°C 7 days) : 1.5
- \* Water Immersion (RT 3 days + in water 3 days) : 0.9
- \* Softening point (ASTM D-816) : 95 °C

**d). Precautions**

1. Should be stored above 0°C

**e). Packaging**

Drum	170kg
Pail can	20kg