



# TECHNICAL LEAFLET

SUNSTAR ENGINEERING INC.

## **One-Part Structural Epoxy Based Adhesive** **PENGUIN CEMENT #1065T**

**Penguin Cement #1065T** is a one-part epoxy based structural adhesive with superior rust prevention.

### **a). Characteristics**

1. Cures perfectly within 1 hour at above 150°C. Good stability in storage is guaranteed for 3 months at room temperature (20°C)
2. Applicable for spot welding
3. Shows good adhesion to oily surface
4. Provides superior rust prevention of both border and inner part of the adhered substances

### **b). Physical Properties**

Appearance	: Dark Brown Paste
Viscosity (20°C)	: $20 \times 10^4$ cps
Specific Gravity	: 1.57
Non-Volatile Content (%)	: >99 %

* Viscosity	: BS type rotor x 2 rpm
Percent solids	: 3 hours at 105°C

### c). General Performances

#### Adhesive Strength

Items	Shear Strength (kg/cm <sup>2</sup> )	Peel Strength (kg/cm <sup>2</sup> )
Normal Adhesive Strength (20°C)	284	20
Humidity Resistance (50°C/ 95%RH)	225	17
Adhesive Strength at 80°C	211	19
Heat Aging Resistance (180°C/30 days)	287	20
Water Immersion Resistance (30 days)	239	18
Thermal Shock (5 cycles)	264	19
Over Baking Resistance (215°C/10 min)	285	19

- Test samples:
  - Shear Strength Test : JIS G-3141 25 x 100 x 1.6mm steel plate
  - Peel Strength Test : JIS G-3141 25 x 150 x 0.8mm steel plate
  - Baking Condition : 170 °C x 20 min
  - Test Equipment : Shimazu Autograph DCS-5000
  - Crosshead Speed : 5mm/min (Shear)  
: 200mm/min (Peel)
- Thermal Shock : 80°C x 16 hrs → -30°C x 8 hrs →  
40°C (Hot Water) x 16 hrs → -30°C x 8 hrs

### d). Precautions

1. As Penguin Cement #1065T is a one-part type adhesive, it should be stored in dark and cool place ( $\approx 10^{\circ}\text{C}$ ) with its cap or lid closely tightened.
2. During application, wear protectors like gloves or apron so that the adhesive does not stick to the skin
3. In case #1065T does stick to skin, immediately wipe it off with thinner and wash with soapsuds.

### e). Packaging

Cartridge	333ml
Pail can	25kg
Drum	250kg