



TECHNICAL LEAFLET

SUNSTAR ENGINEERING INC.

PENGUIN CEMENT # 377

Penguin Cement # 377 is a one component, synthetic rubber based adhesive designed to bond polyolefin foam (PEF) leather onto un-pretreated polypropylene base material without priming.

a). Characteristics

1. Good adhesion to un-pretreated polypropylene
2. Suitable to vacuum formed materials
3. Excellent heat and humidity resistance.

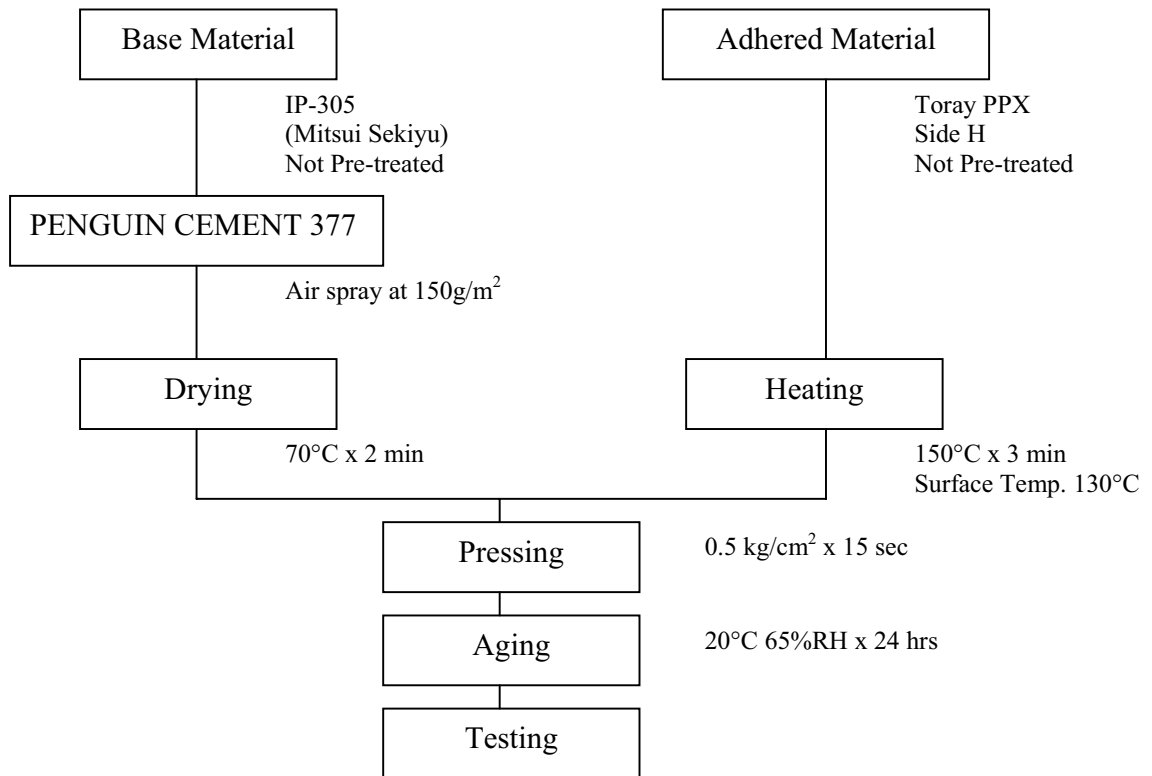
b). Properties

| | |
|--------------------------|---------------|
| Appearance | : Blue Liquid |
| Viscosity (20°C) | : 200 cps |
| Specific Gravity | : 0.85 |
| Non-Volatile Content (%) | : 19.6 % |

| | |
|-------------------------|----------|
| Peel Strength (kg/25mm) | |
| Initial | : 2.0 MB |
| Ordinary State | : 2.3 MB |
| Heat Aging | : 1.8 MB |
| Humidity Resistance | : 1.9 MB |
| Creep Resistance | : 4.0 CF |

*MB: Material Break
CF: Cohesive Failure

c). Applications



(Test Condition)

Peel strength:

- i. Initial : 10 min. after bonding
- ii. Ordinary State : After Ageing
- iii. Heat Ageing : Ageing + 80°C x 400 hrs
- iv. Humidity Resistance : Ageing + 80°C 95%RH x 400 hrs

*Peel Strength is measured at tensile speed 200mm/ min at 180° angle

Creep Resistance : After ageing, measure peel length with 200g load at 90°C

d). Precautions

1. Use in a well ventilated place.
2. Use protective clothing to avoid skin contact.
3. In case of skin or eye contact, immediately flush with soap and water, and get medical attention.
4. If swallowed, drink plenty of water and throw it up. Then immediately get medical attention.
5. Flammable. Keep away from source of ignition.
6. Store at cool and dark place.
7. Moisture sensitive. Close cap tightly for shipping and storage

f). Packaging

Pail can 14kg