

Product Data Sheet: IPC POURING FOAM

Pacific Urethanes NZ Ltd

DESCRIPTION

IPC POURING FOAM is a 32 kg/m³ density low viscosity Rigid Pouring Foam. This formulation is suitable for both hand mix and machine application and is designed for general thermal and sound insulation, marine flotation and void fill.

The high percentage of closed cells provides low water permeability.

APPLICATIONS

IPC POURING FOAM is ideally suited to any of following applications:

- Marine flotation
- Wall and door cavity fill and insulation
- Pipe insulation
- Void filling
- Refrigeration units, cabinets and coolrooms
- Fish bins, holds and freezers
- Model creation

PHYSICAL PROPERTIES

LIQUID COMPONENTS

COMPONENT A COMPONENT B

- Appearance Brown liquid Clear liquid
- Specific Gravity 1.24 1.19
- Viscosity (20°C) 200 cps 600 cps
- Mix Ratio – by volume 1 1
- by weight 1.04 1

REACTION PROFILE (20°C)

- Cream Time 60 seconds
- Gel Time 180 - 240 seconds

FOAM PROPERTIES

- Free rise density 32 ± 2 kg/m³
- Thermal Conductivity 0/02 W/mK approx
- Compressive Strength -Parallel 150 kN/m² approx
- -Perpendicular 125 kN/m² approx
- Closed Cells 90 – 95%
- Dimensional Stability 1 – 5%
- Water Absorption (20°C) 2% by volume

PROCESSING INFORMATION

IPC POURING FOAM can be hand mixed or processed through high pressure pour - in place plural component

1. Drums of components should be pre-heated to at
2. least 25°C prior to mixing or dispensing.
3. Do not add more foam until the product has fully
4. risen, which will be 3 - 4 minutes following mixing.

Hand Mix:

1. Ensure drums/cans of product are warmed to at
2. least 25°C. Accurately measure or weigh the A and
3. B components at the specified ratio. Mix thoroughly
4. with a rotary power mixer for a minimum of 25
5. seconds. Pour into place.

Machine Dispensing:

- Equipment pressure 1000 psi minimum
- Component A (iso)
- Pre-heat
- Hose Temperature
- 20 to 30°C
- 35 to 40°C
-

Component B (Polyol)

- Pre-heat
- Hose Temperature
- 20 to 30°C
- 35 to 40°C

Check machine pressure balance and dispensing ratios regularly. Check the foam quality frequently and resolve any problems before continuing.

The optimum temperatures can vary depending on ambient conditions, applications and substrate.

APPLICATION CONDITIONS

IPC POURING FOAM is formulated for application on most surfaces under various conditions. Substrates should however be clean and dry.

Water or moisture may react with the components and affect the finished results. Elevated surface temperatures will increase the yield. Low surface temperatures (<15°C) will lead to the foam "over-packing" and a loss of yield. Ideal temperatures are 25°C – 35°C.

YIELD

Under ideal conditions, 1 kg of foam fills 0.031 m³. The actual yield will depend on factors such as ambient conditions, product geometry, mixing efficiency and equipment settings.

In particular, cold temperatures and long, thin flow paths, will reduce yield.

PRODUCT HANDLING

All persons using pour foam components should be trained in their use and be familiar with the product MSDS's.

Provide additional ventilation and/or breathing apparatus if used in confined spaces, as required to maintain safe working conditions.

SPECIFICATIONS ON POLYURETHANE FOAM CFC FREE

DENSITY, KG/M3	35
COMPRESSIVE STRENGTH, KPA	222
CORRECTED CLOSED CELL CONTENT, % BY VOLUME	98.8
THERMAL CONDUCTIVITY, W/M.K	0.023
THERMAL RESISTANCE, M2.K/W	0.96
DIMENSIONAL STABILITY	
a) AT AMBIENT HUMIDITY (50+ -4%) CHANGE IN LINEAR DIMENSION, %	
LOW TEMPERATURE (-15 C)	
LENGTH	0.3
WIDTH	0.2
THICKNESS	0.1
HIGH TEMPERATURE (110 C)	
LENGTH	1.5
WIDTH	1.1
THICKNESS	0.2