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FOAM SALES
foam + polystyrene solutions

Product Data Sheet: Rigid Polyurethane

Foam Sales Rigid Polyurethane Foam is a fire retardant, polyurethane cellular thermal insulation material manufactured in the form of bun-stock for cutting and fabrication into sheets and profiles for building and industrial insulation.

This Rigid Polyurethane Material has been formulated to provide superior thermal performance. The product has high thermal insulation properties, with typical K Factor of 0.022-0.023 w/m.k. It is suitable for use in thermal applications in hot and cold environments, with contact side temperatures ranging from -45 to +80 deg C. It is available for purchase as bun-stock, and in standard sheet dimensions.

Applications: Foam Sales Rigid Polyurethane Foam is used in commercial and industrial applications. Due to the critical aspects of some technical design, qualified designers should specify the total system. Foam Sales can provide general guidelines on many typical applications.

Some of these applications include:

- Core material for architectural and structural panels
- Under slab, wall and roof insulation
- Insulation for shipping containers, trucks or rail cars
- Marine buoyancy (with fibreglass coating)
- Pipe tank and vessel insulation

Product Limitations: As with all cellular plastics this product will degrade with prolonged exposure to sunlight. A suitable barrier or membrane should be used to block the ultra-violet radiation. Barriers may also be required to conform with applicable fire regulations or to protect the foam from predictable damage in certain applications.

Safety Considerations: Foam Sales Rigid Polyurethane Foam requires some care in handling. All persons working with these materials should wear proper protective clothing, goggles, gloves and breathing equipment. The current Safety Data Sheet contains additional information on the safe handling, storage and use of this material.

Physical Properties

Density: The density range through the cross section of the block foam is 35-38 kg/m3 (Core density is 34-37kg/m3).

Thermal Conductivity: Tested in accordance with ASTM C177, K = 0.022 (W/mK) at 20°C mean temperature.

Closed Cell Content: AS2498.7. 91% (+/- 5%)

Cell Structure: Fine and even

Dimensional Stability: Pass. (Variation less than 2%)

Compressive Strength: AS2498.3. At 10% deformation: Parallel: 250 ± KPa . Perpendicular: 130 ± Kpa

Flammability: Self Extinguishing. (ASTM D1692)

Fire Hazard: This product contains chemical fire retardant additives. The foam will burn while in contact with a flame or under very high temperature fire conditions.
Follow the building code of Australia requirements / use conditions for the use of rigid cellular polyurethane products in commercial and industrial building applications.
Use of polyurethane or polyisocyanurate foam in interior applications present an unreasonable fire hazard unless the foam is protected with a fire resistant thermal barrier.

Water Absorption: AS2898.8. 3.56 % by volume for exposure time of 100 hours

Buoyancy Properties: Meets Marine Board approval requirements for internal buoyancy in small vessels.

Chemical Resistance: To kerosene, petrol, distillate and oils.

Block Size: 2400x1200x600mm slit to any sheet thickness.

EXCLUSION OF WARRANTIES
This information is of a general nature and is supplied without a stated, or implied guarantee. Properties shown are typical and do not imply specific tolerances. Foam Sales cannot accept liability for loss or damage through use. While these technical details are based upon expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are applied. Users must, by comprehensive testing, evaluate this product in their own environment.

For further information, and for technical advice on insulation contact Foam Sales: (08) 9330 1199.