

Product Information Bulletin 229

PlastiSpan 20 Insulation Material Property Data

Product Information Bulletin

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PlastiSpan® 20 Insulation Material Property Data Sheet

PlastiSpan® 20 insulation is a closed cell expanded polystyrene (EPS) insulation that meets or exceeds the requirements of CAN/ULC-S701, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering**. The closed cell structure of **PlastiSpan 20** insulation resists water absorption so it will retain its R-value even in applications where severe temperature differentials occur.

PlastiSpan 20 insulation minimum compressive resistance of 140 kPa (20 psi) makes it ideal to insulate low temperature freezer floors or for use in other applications where moderate loads are expected.

| Material Property | Test Method | Units | Values ¹ |
|---|---------------|---|---------------------|
| Compressive Resistance² <i>Minimum @ 10% Deformation</i> | ASTM D1621 | kPa (psi) | 140 (20) |
| Compressive Modulus <i>Minimum</i> | | kPa (psi) | 5,000 (725) |
| Thermal Resistance <i>Minimum per 25 mm (1 inch)</i> | ASTM C518 | m ² ·°C/W (ft ² ·h·°F/BTU) | 0.70 (4.04) |
| Flexural Strength <i>Minimum</i> | ASTM C203 | kPa (psi) | 280 (40) |
| Water Vapour Permeance³ <i>Maximum</i> | ASTM E96 | ng/(Pa·s·m ²) (Perms) | 200 (3.5) |
| Water Absorption⁴ <i>Maximum</i> | ASTM D2842 | % By volume | 2.0 |
| Dimensional Stability <i>Maximum, 7 Days @ 70 ± 2 °C (158 ± 4 °F)</i> | ASTM D2126 | % Linear Change | 1.5 |
| Limiting Oxygen Index <i>Minimum</i> | ASTM D2863 | % | 24 |

1. PlastiSpan 20 insulation properties meet or exceed requirements for CAN/ULC-S701, type 2.
2. PlastiSpan 20 insulation compressive resistance exceeds minimum requirement for CAN/ULC-S701, type 2.
3. WVP values quoted are maximum values for 25-mm thick samples with natural skins intact. Lower values will result for thicker materials.
4. The water absorption laboratory test method involves complete submersion under a head of water for 96 hours. The water absorption value above is applicable to specific end-use design requirements only to the extent that the end-use conditions are similar to test method requirements.