AEI SX720:CM488

Medium Density Polyethylene

AEI Compounds Limited

Message:

Tensile Strain (Break)

Silane crosslinkable polyethylene for high temperature pressure pipes

SX720 is a silane grafted polyethylene compound, curable by exposure to moist conditions, and possessing good extrusion properties at high output rates. The graft component SX720 is mixed with a crosslinking catalyst masterbatch CM488 generally in the ratio 95:5.

The highly crosslinked materials produced by this two-component system possess excellent impact strength, ESCR, creep and internal pressure resistance under ambient and elevated temperature conditions.

These materials have been formulated for hot and cold water pressure pipes and are easily extruded on conventional polyethylene extrusion lines.

| General Information | | | | | |
|---|--------------------------------|--|-----------------|--|--|
| Features | High ESCR (Stress Cracking Res | High ESCR (Stress Cracking Resistance) | | | |
| | Impact resistance, high | | | | |
| | Crosslinkable | | | | |
| | Good creep resistance | | | | |
| | | | | | |
| Uses | Piping system | | | | |
| Agency Ratings | BS 7291 Class S | | | | |
| | DIN 16892 | | | | |
| | EC 1907/2006 (REACH) | | | | |
| | NSF 14 | | | | |
| | NSF 61 | | | | |
| | WRAS not rated | | | | |
| | | | | | |
| RoHS Compliance | RoHS compliance | | | | |
| Forms | Particle | | | | |
| Processing Method | Pipeline extrusion molding | | | | |
| | Extrusion | | | | |
| | | | | | |
| Physical | Nominal Value | Unit | Test Method | | |
| Density | 0.952 | g/cm³ | BS 2782 620A | | |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 | | | | | |
| kg) | 1.0 | g/10 min | Internal method | | |
| Gel Content | 70 | % | ASTM D2765 | | |
| Hot Elongation - 40 N/cm ² (200°C) | 60 | % | IEC 60811-2-1 | | |
| Head Temperature | 205 | °C | | | |
| Extruder Screw L/D Ratio | 20.0:1 to 25.0:1 | | | | |
| Extruder Screw Compression Ratio | 2.5:1 to 3.0:1 | | | | |
| Mechanical | Nominal Value | Unit | Test Method | | |
| Tensile Stress | 24.0 | MPa | IEC 60811-1-1 | | |

%

IEC 60811-1-1

540

| Additional Information | Nominal Value | Unit | Test Method |
|------------------------|---------------|------|-------------|
| | | | |

Crosslinking or cure: If properly processed the material has the capacity of crosslinking under ambient conditions. Should accelerated cure times be required, then any of the following methods may be employed. Immersion in water at 80°C

Flushing with water at 80° C (as in a sauna)

| Exposure to steam at 50 C (as in a sauna) | | | | |
|---|---------------|------|--|--|
| Extrusion | Nominal Value | Unit | | |
| Cylinder Zone 1 Temp. | 140 | °C | | |
| Cylinder Zone 2 Temp. | 175 | °C | | |
| Cylinder Zone 3 Temp. | 185 | °C | | |
| Cylinder Zone 4 Temp. | 195 | °C | | |
| Die Temperature | 210 | °C | | |

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