



BPD2142

Product Technical Information

BPD2142 is an unstabilised low density polyethylene.

This material, when compounded with suitable additives, is designed for use in silane crosslinking processes. Its melt flow rate allows it to be processed with the two main silane technologies:

Monosil® (one-step process) and Sioplas® (two-step process).

It has been developed for insulation of power cables up to 5 kV.

Specification

BPD2142 meets the following material specification:

- ISO 1872/1:PE, KGN, 27
- D012 ASTM 1248: Type 2,
- Class A, Cat. 4

Regulations and approvals

Power cables insulated with BPD2142 meet most national and international specifications, in particular IEC 60502 - 1/2. Information concerning suitability to a given specification is available from INEOS.

Packaging

BPD2142 is sold in pellet form and is available in the following packages: 25 kg bags, 1.1 ton holbins and bulk tankers.

Processing Data

BPD2142 is widely used for silane crosslinked LV insulation, usually with the two-step process. The processing parameters depend on the additives introduced by the user (antioxidants), and also the grafting machine (first step) and the extrusion machine (second step). Usually, 1.5 - 1.8 % of a vinyltrimethoxysilane blend is added to BPD2142 during the grafting step. A predrying step is not needed for this material.

Properties	Test Method	Value ⁽¹⁾	Units
Physical			
Melt flow rate	ISO 1133 Cond. D	1.0	g/10min
Conventional density conditioning ISO 1872/1	ISO 1183 Method D	930	kg/m ³



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BPD2142 when grafted in the laboratory with 1.5 % of a suitable silane/peroxide mixture and with subsequent addition of a tin condensation catalyst, typically gives the following results on a 1.5 mm thick tape after curing overnight in water at 80 °C.

Properties		Test Method	Value ⁽¹⁾	Units
Tensile strength	@ break	IEC 811-1-1	17	MPa
Elongation	@ break	IEC 811-1-1	350	%
Heat elongation		IEC 811-2-1	60	%
200 °C, 15 min, 20 N/cm ²				

(1) Data should not be used for specification work.