

**POLYETHYLENE PE 80  
PE GRADE 6845G (446H7)**

Product obtained by gas phase polymerization of ethylene with hexane-1 in presence of complex metalorganic catalysts.

Stabilization recipe: antacids, antioxydant, heat stabilizer, processing additive, dispersant, carbon black.

Application: production of pipes and fittings of gas distribution networks, as well as pressure pipes and fittings of process and potable cold water supply.

Polyethylene type:

Chemical name:

Empirical Formula:

Technical requirements:

**High density polyethylene(HDPE)**

**Ethylene copolymer with hexane-1**

$[(-CH_2)_3-CH(C_4H_9)]_{n+m}$

**TU 2211-150-05766801-2009**

PROPERTY	Value	Test method
1 Density at 23 °C, kg/m <sup>3</sup>	Optional	As per 4.2 of the present TU or ASTM D 1505
6 Melt flow rate at 190 °C and 5,0 kg, g/10 min, in the range	0.5-0.8	As per 4.3 of the present TU or ASTM D 1238
3 Ratio $MFR_{21,6 \text{ kg}}/MFR_{5,0 \text{ kg}}$ , min	18	As per 4.4 of the present TU
4 Ranges of melt flow rate values within a lot, %, max.	10	As per 4.5 of the present TU
5 Tensile yield strength, MPa, min.	18	As per 4.6 of the present TU
6 Tensile elongation, %, min.	500	As per 4.6 of the present TU
7 Carbon black, %wt	2.0-2.5	As per GOST 26311 or ISO 6964
8 Carbon black distribution type	A1, A2, A3, B	As per 4.7 of the present TU
9 Volatiles weight content, mg/kg, max.	350	As per GOST 26359
10 Heat stability at 200 °C, min, min.	20	As per 4.8 of the present TU
11 Resistance to slow cracking development at 80 °C and to initial stress of pipe wall, MPa, (for pipes $d$ 110 mm with SDR 11 or $d$ 160 mm with SDR 11), h, min.	4.0	As per 4.9 of the present TU
12 Resistance to gas components at 80 °C and to initial stress of pipe wall 2 MPa (for pipes $d$ 32 mm with SDR 11), h, min.	500	As per 4.10 of the present TU
	20	TU

13 Resistance to rapid cracking development at 0 °C with maximum working pressure of pipeline more than 0.4 MPa - small scale method for pipes d 110 mm with SDR 11, critical ressure $p_c$ , MPa, min.	$\frac{MOP}{2,4} - 0,072$	As per 4.11 of the present TU
14 Resistance at constant internal pressure at 20 °C for pipes d 32 mm with SDR 11 with initial stress, h, min. 10.0 MPa	100	As per 4.12 of the present TU
15 Lower confidence limit of long-term strength $\square_{LCL}$ , MPa	$\geq 8$	As per GOST ISO 12162

**Supply form:** Pellets

**Packaging:** Product is packed into polyethylene bags (one bag net weight 25.00 ± ±0.25 kg) and bundled on flat pallets with shrink film. Gross weight of a bundle is max 2 t. PE may be packed into soft containers (big bags) sized for 400-1000 kg. Upon agreement with Customer PE pellets are bulk loaded into railway cars, tipper trucks or loaded in bags to railway cars.

**Transportation:** By all transport means.

**Storage:** Polyethylene shall be stored in enclosed dry space preventing from direct sun rays, on shelves or pallets at least 5 cm from the floor, and at least 1 m from heaters, at temperature max 30°C and relative humidity max 80%. Prior to processing, bags with polymer shall be kept for at least 12 hrs in production area.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release customer from the responsibility to check the product for suitability for the intended use. Manufacturer bears no liability for any loss and damage which may occur due to use of this information.