

## ● HDPE Composition, PE100

PE2NT 11-9

TU 2243-174-00203335-2007

Production method: gas-phase method of ethylene copolymerization at low pressure using the complex catalysts.

Application: PE compositions are intended for production of pipes and fittings, particularly for utility and drinking water supply, for compositions with marked stripes, and items that are produced by blow molding method as well as making high-strength thick films with thickness of 20 μm and greater.

No.	Parameter	Standard
1	Density, kg/cm <sup>3</sup> at 23 °C at 20 °C	954-960 956-962
2	Melt Flow Index at 190 °C, g/10 min.: a) at 212 N (21.6 kgf) b) at 49 N (5 kgf)	5-7 0,1
3	MFI <sub>21.6</sub> /MFI <sub>2.16</sub> ratio	100-170
4	MFI spread within one batch, %, maximum	±10
5	Tensile yield strength, MPa, minimum	21
6	Elongation at break, %, minimum	500
7	Carbon black weight content, %	2,0-2,5
8	Volatile weight content, mg/kg, maximum	350
9	Carbon black distribution type	I-II
10	Thermal stability at 200 °C, min., minimum	20
11	Slow propagation crack resistance at 80 °C, with initial wall stress 4.6 MPa, (on pipe samples d110 mm with SDR 11 or d160 mm with SDR 11) hrs, minimum	165 500
12	Gas component resistance at 80 °C, with initial wall stress 2 MPa, (on pipe samples d32 mm SDR 11) hrs, minimum	20
13	Resistance to rapid crack propagation at 0 °C, at maximum operating pressure exceeding 0.4 MPa 13.1 Small-scale method on pipe samples d110 mm with SDR 11, critical pressure p <sub>c</sub> , MPa, minimum 13.2 Full-scale method on pipe samples d160 mm with SDR 11, critical pressure p <sub>c</sub> , MPa, minimum	MOP/2,4-0,072 MOPx1,5
14	Stability at constant internal pressure at 20 °C on pipe samples d32 mm SDR 11 with initial stress, hrs, minimum 12.4 MPa 11.6 MPa	100 2500
15	Lower confidence bound of the stress-rupture strength, σ <sub>LCL</sub> , MPa	≥10

Packaging, handling and storage are in PE and PP bags that provide products preservation and maintain its quality as per documents approved under the appropriate procedure. Transportation by combined roofed transport in accordance with the rules of carriage related to this mode of transport.



PE100 HDPE Composition of PE2NT11-9 grade is a prize-winner of "The 100 Best Russian Products of 2009" and "The Best Products of the Republic of Tatarstan of 2009" Contests