# Borlink<sup>™</sup> LC8205R

## Crosslinked Polyethylene

### Borealis AG

#### Message:

Borlink LC8205R is a crosslinkable natural polyethylene compound based on Supercure technology, specially designed for insulation of energy cables. Borlink LC8205R is intended for insulation of XLPE power cables with rated voltages up to 72 kV. It is designed for cable constructions with bonded insulation shields.

Borlink LC8205R meets the applicable requirements as below when processed using sound extrusion practices and testing procedures Cenelec HD 620 S1, Part 1, table 2A, DIX 3-14 DIN VDE 0276-620

GOSTR 55025-2012

IEC 60502-2

IEC 60840

Borlink LC8205R is a ready-to-use natural co-polymer compound. It provides superior electrical performance (polymer WTR XLPE) meeting the most stringent wet ageing requirements. It offers excellent scorch resistance, long production runs and high line speed potential. Borlink LC8205R cleanliness level is assured through the Borealis quality control system.

General Information			
Features	Pure/High Purity		
	Workability, good		
	Crosslinkable		
	Good electrical performance		
Uses	Cable sheath		
	Insulating material		
	Insulation shield		
	Moisture-resistant insulating material		
	Medium voltage insulation		
Agency Ratings	DIN VDE 0276-620 EC 1907/2006 (REACH) GOSTR 55025-2012		
	HD 620 S1, Part 1, table 2A, DIX 3 to 14		
	IEC 60502-2		
	IEC 60840 (1st edition)		
Appearance	Natural color		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density (Base Resin)	0.924	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16			
kg)	3.0	g/10 min	ISO 1133
Moisture Content		ppm	Karl Fisher

Change in Tensile Properties - After			
Ageing 168 h (135°C) <sup>1</sup>		%	IEC 60811-401
Thermoset			IEC 60811-507
Elongation under load, 0.20 MPa : 200°C	75	%	IEC 60811-507
Permanent deformation, 0.20 MPa :			
200°C	5.0	%	IEC 60811-507
Methanol Wash		ppm	Internal method
Monsanto ODR	37.0 - 47.0	dNm	ASTM D2084
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup> (Yield)	> 17.0	MPa	ISO 527-2/250
Tensile Strain <sup>3</sup> (Break)	> 450	%	ISO 527-2/250
Electrical	Nominal Value	Unit	Test Method
Electrical Volume Resistivity	Nominal Value > 1.0E+15	Unit ohms·cm	Test Method IEC 60093
Electrical Volume Resistivity Dielectric Strength	Nominal Value           > 1.0E+15           > 22	Unit ohms·cm kV/mm	Test Method IEC 60093 IEC 60243-1
Electrical Volume Resistivity Dielectric Strength Dielectric Constant (50 Hz)	Nominal Value           > 1.0E+15           > 22           2.30	Unit ohms·cm kV/mm	Test Method           IEC 60093           IEC 60243-1           IEC 60250
Electrical Volume Resistivity Dielectric Strength Dielectric Constant (50 Hz) Dissipation Factor (50 Hz)	Nominal Value           > 1.0E+15           > 22           2.30           5.0E-4	Unit ohms·cm kV/mm	Test Method           IEC 60093           IEC 60243-1           IEC 60250           IEC 60250
Electrical Volume Resistivity Dielectric Strength Dielectric Constant (50 Hz) Dissipation Factor (50 Hz) Additional Information	Nominal Value           > 1.0E+15           > 22           2.30           5.0E-4           Nominal Value	Unit ohms·cm kV/mm Unit	Test Method           IEC 60093           IEC 60243-1           IEC 60250           IEC 60250           Test Method
Electrical         Volume Resistivity         Dielectric Strength         Dielectric Constant (50 Hz)         Dissipation Factor (50 Hz)         Additional Information         The product(s) mentioned herein are not integrations.	Nominal Value         > 1.0E+15         > 22         2.30         5.0E-4         Nominal Value         ended to be used for medical, pharmace	Unit ohms·cm kV/mm Unit unit	Test Method IEC 60093 IEC 60243-1 IEC 60250 IEC 60250 Test Method ve do not support their use
Electrical Volume Resistivity Dielectric Strength Dielectric Constant (50 Hz) Dissipation Factor (50 Hz) Additional Information The product(s) mentioned herein are not interfor such applications. Extrusion	Nominal Value         > 1.0E+15         > 22         2.30         5.0E-4         Nominal Value         ended to be used for medical, pharmace         Nominal Value	Unit ohms·cm kV/mm Unit eutical or healthcare applications and w Unit	Test Method IEC 60093 IEC 60243-1 IEC 60250 IEC 60250 Test Method ve do not support their use
Electrical         Volume Resistivity         Dielectric Strength         Dielectric Constant (50 Hz)         Dissipation Factor (50 Hz)         Additional Information         The product(s) mentioned herein are not integror such applications.         Extrusion         Melt Temperature	Nominal Value   > 1.0E+15   > 22   2.30   5.0E-4   Nominal Value   ended to be used for medical, pharmace   Nominal Value   125 - 135	Unit ohms·cm kV/mm Unit eutical or healthcare applications and w Unit C	Test Method IEC 60093 IEC 60243-1 IEC 60250 IEC 60250 Test Method ve do not support their use

NOTE	
1.	Crosslinked specimen
2.	Crosslinked specimen
3.	Crosslinked specimen

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