



Product Description

EL-Lene H5211PC is a black, bimodal technology, high density polyethylene compound classified as a MRS 8.0 material (PE80) providing superior in mechanical properties and processability. EL-Lene H5211PC also shows excellent resistance to rapid crack propagation and slow crack growth. In addition, It includes a good dispersion of carbon black pigment and anti-oxidant to ensure excellent long term in UV resistance and thermal stability.

Typical Application

- Drinking water pressure pipes
- Drainage pipes
- Sewerage pipes
- Corrugated pipes

Product Characteristics

- Good processing
- Excellent thermal stability
- High resistance to slow crack growth
- High rapid crack propagation
- Low sagging

International specification

- ASTM D3350, Class PE525535C
- PPI designation PE3408
- PIPA, Australia
- INSTA-CERT Mark, Sweden
- SIRIM, Malaysia

Physical properties

Property	Test Method	Value	Unit
Melt Flow Rate	ISO 1133 @ 190°C, 5.0 kg	0.40	g /10 min
Density (Compound)	ISO 1183	0.960	g / cm ³
Tensile Strength at Yield	ISO 527 @ Crosshead speed 100 mm/min	24	MPa
Tensile Strength at Break	ISO 527 @ Crosshead speed 100 mm/min	36	MPa
Elongation at Break	ISO 527 @ Crosshead speed 100 mm/min	840	%
Oxidative induction time	ISO/TR10837 @ 200°C	>70	min.
MRS (Minimum required strength)	ISO TR9080	8	MPa
Resistance to slow crack growth	ISO 13479 @ 80°C	>500	Hrs
Rapid crack propagation	ISO 13477	>8	bar
Resistance to gas constituents	ISO 1167	>20	Hrs
Carbon Black Content	ISO 6964	2.3	% wt
Flexural Modulus	ASTM D 790	1,000	MPa
Notched Izod Impact	ASTM D 256 @ 23°C	20	kg .cm/cm
Notched Izod Impact	ASTM D 256 @ 0°C	16	kg .cm/cm
Notched Izod Impact	ASTM D 256 @ -20°C	7.6	kg .cm/cm
Hardness	ASTM D 2240	62	Shore D
ESCR	ASTM D 1693	>10,000	Hrs, F ₀

Processing Guidelines

For extrusion of EL-Lene H5211PC, it is recommended to use a screw giving good homogenisation without excessive shear. Standard PE screws have proven satisfactory and will be used with good result. For normal extrusion equipments we suggest a melt temperature of 170 -200°C, and drying 80 - 90°C for 1 - 2 hours.

Product Technical Assistance

For technical assistance or further information on this product or any other EL-Lene products contact ; EL-Lene representative.

Product Available Form

- Black pellet

Product Handling

- 25 kg loose bag
- 650 or 750 kg big bag or Sea bulk

The information presented in this data sheet is offered in good faith. SCG Plastics Company Limited accepts no responsibility for the accuracy or interpretation of the information presented. The users have to establish for themselves the most suitable formulation, production method and control tests, to ensure the uniformity and quality of their products in compliance with all related laws.

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