

Product Description

EL-Lene H1000PC is a black, bimodal technology, high density polyethylene compound classified as a MRS 10.0 material (PE100) providing superior in mechanical properties and processability. EL-Lene H1000PC 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	Product Characteristics	International specification
<ul style="list-style-type: none"> • Potable water pipes • Drainage pipes • Sewerage pipes • Industrial pipes • Corrugated pipes 	<ul style="list-style-type: none"> • Good processing • Excellent thermal stability • High resistance to slow crack growth • High rapid crack propagation • Low sagging 	<ul style="list-style-type: none"> • ASTM D3350, Class PE535536C • PPI designation PE3408 • PE 100+ Association • PIPA, Australia • INSTA-CERT Mark, Sweden • NF Mark, France • SIRIM, Malaysia

Physical properties

Property	Test Method	Value	Unit
Melt Flow Rate	ISO 1133 @ 190°C, 5.0 kg	0.25	g /10 min
Density (Compound)	ISO 1183	0.959	g / cm ³
Tensile Strength at Yield	ISO 527 @ Crosshead speed 100 mm/min	26	MPa
Tensile Strength at Break	ISO 527 @ Crosshead speed 100 mm/min	36	MPa
Elongation at Break	ISO 527 @ Crosshead speed 100 mm/min	880	%
Oxidative induction time	ISO/TR10837 @ 200°C	>70	min.
MRS (Minimum required strength)	ISO TR9080	10	MPa
Resistance to slow crack growth	ISO 13479 @ 80°C	> 500	Hrs
Rapid crack propagation	ISO 13477	≥ 12	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	36	kg .cm/cm
Notched Izod Impact	ASTM D 256 @ 0°C	32	kg .cm/cm
Notched Izod Impact	ASTM D 256 @ -20°C	25	kg .cm/cm
Hardness	ASTM D 2240	64	Shore D
ESCR	ASTM D 1693	>10,000	Hrs, F ₀

Processing Guidelines

For extrusion of EL-Lene H1000PC, 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 200 - 220°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 Product Handling

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| <ul style="list-style-type: none"> • Black pellet | <ul style="list-style-type: none"> • 25 kg loose bag • 650 or 750 kg big bag or Sea bulk |
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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.

SCG Plastics Company Limited 1 Siam Cement Road, Bangsue, Bangkok, 10800 Thailand.

Tel. +66 2586 3675, +66 2586 5111, +66 2586 5511 Fax +66 2586 3676

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