

Arnitel[®] E1–Heat

Copolyetherester

Heat Stabilizing Masterbatch, 30% Active heat stabilizing ingredients, TPC based

Print Date: 2025–10–04

Envalior offers a complete portfolio of thermoplastic polyester elastomers. These materials, sold under the trade name Arnitel[®], combine excellent flexibility at low temperatures (down to –50°C) with good heat resistance. For critical applications, the heat resistance can be further improved by using the Arnitel[®] E1–HEAT masterbatch. Standard Arnitel[®] grades have sufficient heat stability for most applications, however some applications like hoses, beltings or seals and gaskets may require an improved heat stability. Arnitel[®] U and Arnitel[®] C grades, Envalior's thermoplastic polyester elastomers with standard heat resistance above 3000 hours at 150°C, need no additional heat stabilization. The figure on the next page shows the reference heat stability and the effect of adding 2.5% of Arnitel[®] E1–HEAT. In the graphs, the effect of thermo–oxidative ageing at different temperatures (x–axis) on the half life time (HLT) of the elongation at break of ISO 527 1BA tensile bars is given. HLT is defined as the time point where the elongation is 50% of the original value. Arnitel[®] E1–HEAT can be used for injection molding and extrusion applications. It is based on an Arnitel[®] carrier and shows good dispersion in any Arnitel[®] type. Arnitel[®]

E1–HEAT can be used in natural and colored applications. For non–black applications, some discoloration as a result of the stabilizing package has to be taken into account.

Not recommended to use in Food contact applications.

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MATERIAL SPECIFIC PROPERTIES	VALUE		
Melting Point	145 to 160	°C	
Active heat stabilizing ingredients	29 – 31	%	
Usage for optimal performance	1.5 – 3.0	%	

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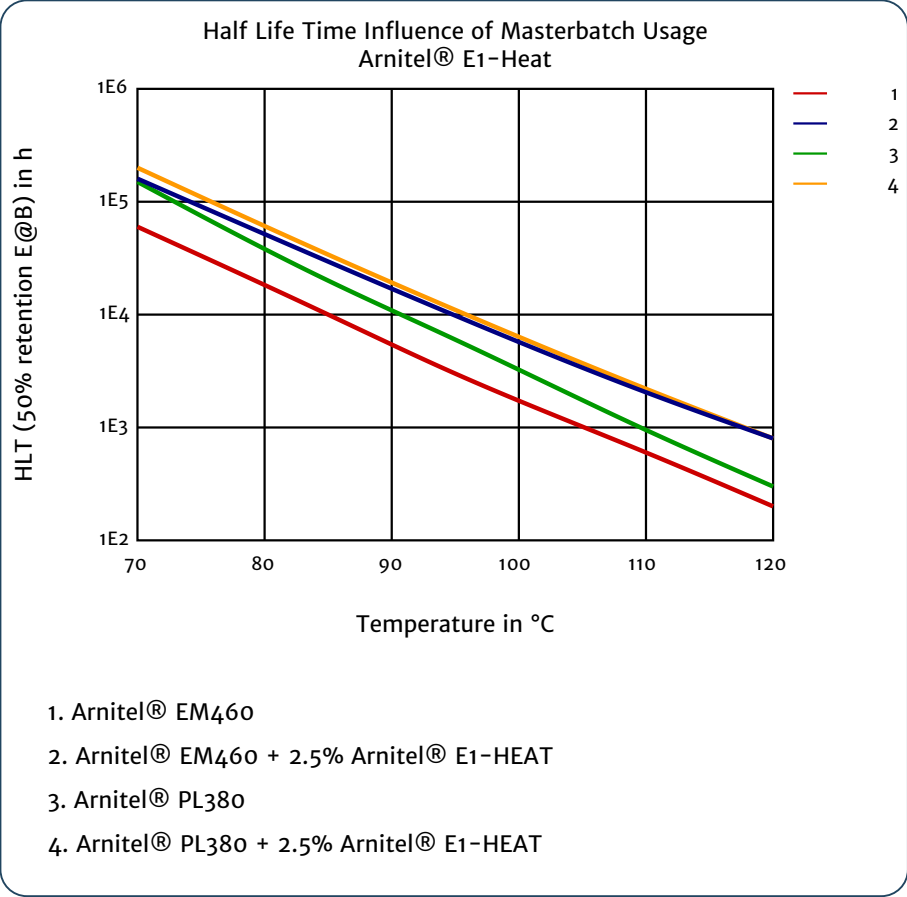
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Half Life Time Influence of Masterbatch Usage



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