

EF00-Series

Energy Absorbing TPE



Product Description

EndoChem EF-Series is a specially formulated, injection moldable, thermoplastic elastomer with excellent damping properties.

Features

- High Damping Material
- Injection Moldable
- Halogen Free / RoHS Compliant / REACH Compliant

Applications

EndoChem EF-Series TPE is typically used for vibration and noise mitigation inside systems and shock protection for sensitive components.

Typical Properties

Product Line	EF0045	EF0065
Density (g/cm ³) ASTM D792	1.00	1.00
Hardness ASTM D2240 Type A Durometer	45	65
Tensile Strength (MPa) ASTM D412 Die C	7.54	8.21
Tear Strength kN/m) ASTM D624 Die C Modified	12.06	21.68
Elongation (%) ASTM D412	> 500	> 400
Compression Set (%) ASTM D395 Method B 22hrs at 25°C	27.7	26.4
Damping Performance @ 10Hz	0.73 @ -3 °C	1.15 @ 13 °C
Operating Temperature Range (°C)	0 to 70	0 to 70
UL94 Flammability Rating	HB	HB
Halogen Free / RoHS Compliant / REACH Compliant	Yes / Yes / Yes	Yes / Yes / Yes

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Typical Properties Continued

Compression Load Deflection - ASTM D575 10mm/min		
Material Number	EF0045	EF0065
Force at 10% compression (MPa)	0.62	0.78
Force at 20% compression (MPa)	1.34	1.74
Force at 30% compression (MPa)	2.20	2.84
Force at 40% compression (MPa)	3.40	4.31
Force at 50% compression (MPa)	5.22	6.54

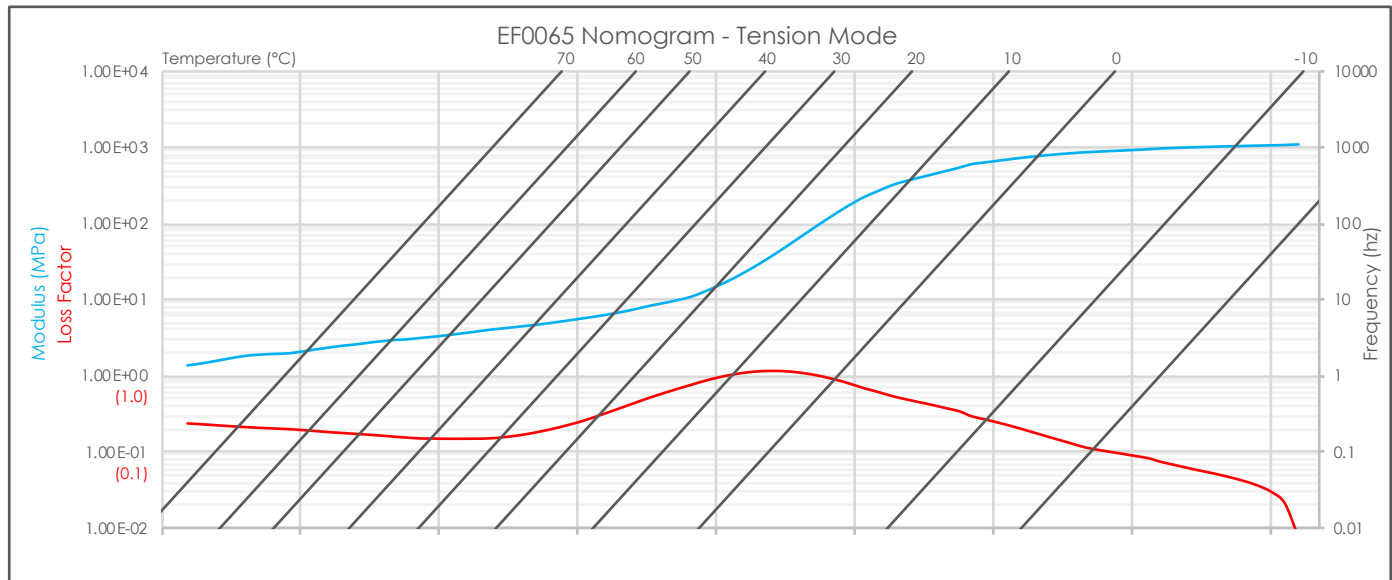
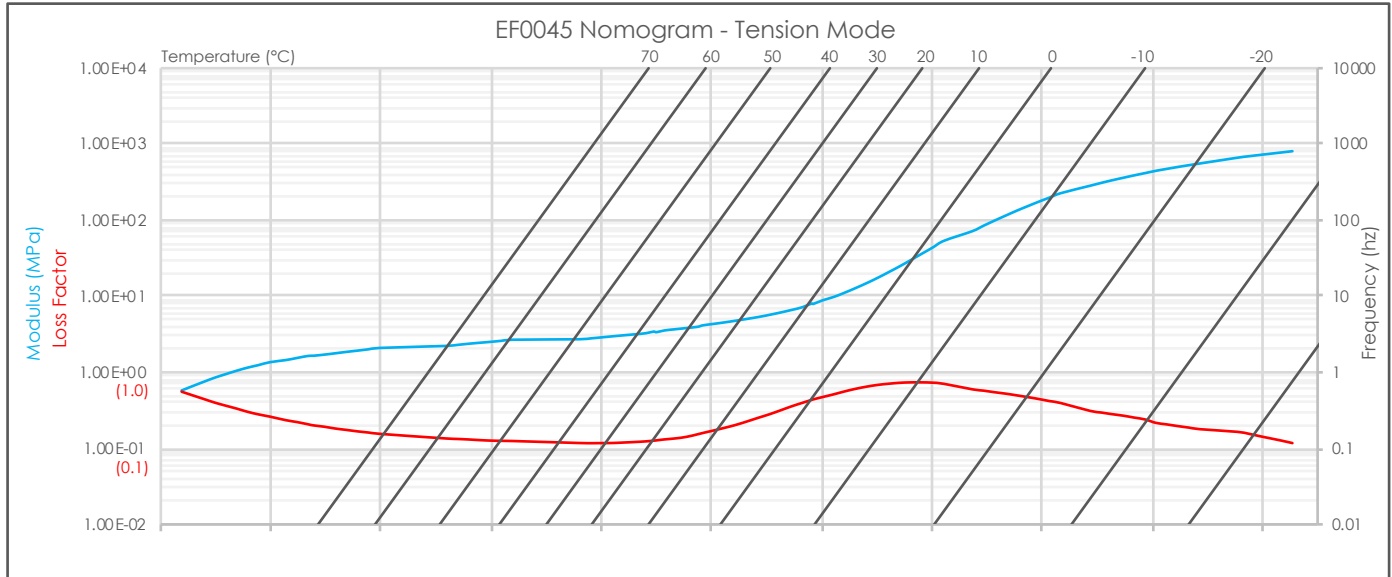
Tensile Load Deflection - ASTM D412 500mm/min		
Material Number	EF0045	EF0065
Force at 10% Elongation (MPa)	0.53	0.75
Force at 20% Elongation (MPa)	0.65	1.08
Force at 30% Elongation (MPa)	0.75	1.28
Force at 40% Elongation (MPa)	0.78	1.42
Force at 50% Elongation (MPa)	0.82	1.53
Force at 100% Elongation (MPa)	0.92	1.86
Force at 200% Elongation (MPa)	1.11	2.48

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Typical Properties Continued



Storage and Shelf Life

Recommended storage in a temperature controlled room at 18-25°C with a 50% nominal relative humidity. Under these conditions, shelf life is good for up to 6 months from the date of manufacture.

Warranty and Disclaimer: The user is solely responsible for evaluating the product and determining whether it is acceptable for use and suitable for the user's method of application. EndoChem warrants that each product meets the applicable EndoChem product specification at the time of shipment. If the EndoChem product does not conform to this warranty, then the sole and exclusive remedy is, at EndoChem's option, replacement of the product or refund of the purchase price.

Limitation of Liability: Except where prohibited by law, EndoChem will not be liable for any loss or damage arising from the EndoChem product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

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