

RN03 SERIES

Damped Rubber



Product Description

EndoChem RN03 Series is a compression molded damped synthetic rubber.

Features

- High Damping Performance @ Lower Temps
- Low Compression Set
- REACH / ROHS Compliant
- Halogen Free

Applications

EndoChem RN03 Series Damped Rubber is typically used for applications in consumer electronics, medical equipment, automotive and industrial markets that require high anti-shock and anti-vibration performance in a small form factor.

Typical Properties

Product Line	RN0320	RN0325	RN0330	RN0335
Density (g/cm ³) ASTM D792	1.15	1.15	1.18	1.22
Hardness ASTM D2240 Type A Durometer	20	25	30	35
Tensile Strength (MPa) ASTM D412 Die C	3.15	3.55	4.41	6.42
Tear Strength (kN/m) ASTM D624 Die C	9.11	9.60	11.86	16.07
Elongation (%) ASTM D412	> 500	> 500	> 500	> 450
Compression Set (%) ASTM D395 Method B 22hr @ 25°C	15.4	16.1	14.6	15.5
Compression Set (%) ASTM D395 Method B 22hr @ 70°C	29.8	28.7	28.8	29.3
Damping Performance @ 10Hz	1.92 @ 12°C	1.94 @ 6°C	1.89 @ 10°C	1.73 @ 11°C
Operating Temperature Range (°C)	0 to 70	0 to 70	0 to 70	0 to 70
UL94 Flammability Rating	HB	HB	HB	HB
ROHS	Yes	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes	Yes
REACH	Yes	Yes	Yes	Yes

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Typical Properties Continued

Product Line	RN0345	RN0355	RN0365
Density (g/cm ³) ASTM D792	1.25	1.28	1.31
Hardness ASTM D2240 Type A Durometer	45	55	65
Tensile Strength (MPa) ASTM D412 Die C	8.08	11.11	11.80
Tear Strength (kN/m) ASTM D624 Die C	26.04	32.34	38.43
Elongation (%) ASTM D412	> 400	> 300	> 200
Compression Set (%) ASTM D395 Method B 22hr @ 25°C	15.8	16.8	15.9
Compression Set (%) ASTM D395 Method B 22hr @ 70°C	29.6	28.9	27.3
Damping Performance @ 10Hz	1.65 @ 7°C	1.31 @ 11°C	1.03 @ 9°C
Operating Temperature Range (°C)	0 to 70	0 to 70	0 to 70
UL94 Flammability Rating	HB	HB	HB
ROHS	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes
REACH	Yes	Yes	Yes

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Typical Properties Continued

Compression Load Deflection ASTM D575 10mm/min							
Product Line	RN0320	RN0325	RN0330	RN0335	RN0345	RN0355	RN0365
Force at 10% compression (MPa)	0.37	0.47	0.52	0.68	0.97	1.30	1.92
Force at 20% compression (MPa)	0.80	1.06	1.13	1.48	1.95	2.42	3.75
Force at 30% compression (MPa)	1.36	1.83	1.91	2.53	3.22	3.92	6.28
Force at 40% compression (MPa)	2.23	2.96	3.07	4.01	5.28	6.27	10.17
Force at 50% compression (MPa)	3.69	4.75	4.97	6.36	8.67	10.01	NA

Tensile Load Deflection ASTM D412 500mm/min							
Product Line	RN0320	RN0325	RN0330	RN0335	RN0345	RN0355	RN0365
Force at 10% Elongation (MPa)	0.23	0.37	0.37	0.44	0.53	0.79	1.16
Force at 20% Elongation (MPa)	0.31	0.44	0.48	0.56	0.80	1.22	1.70
Force at 30% Elongation (MPa)	0.37	0.46	0.55	0.64	0.99	1.53	2.07
Force at 40% Elongation (MPa)	0.41	0.49	0.61	0.71	1.14	1.77	2.41
Force at 50% Elongation (MPa)	0.44	0.51	0.65	0.75	1.27	1.99	2.69
Force at 100% Elongation (MPa)	0.54	0.57	0.79	0.92	1.83	2.84	3.81
Force at 200% Elongation (MPa)	0.69	0.68	1.01	1.31	2.84	4.15	5.49

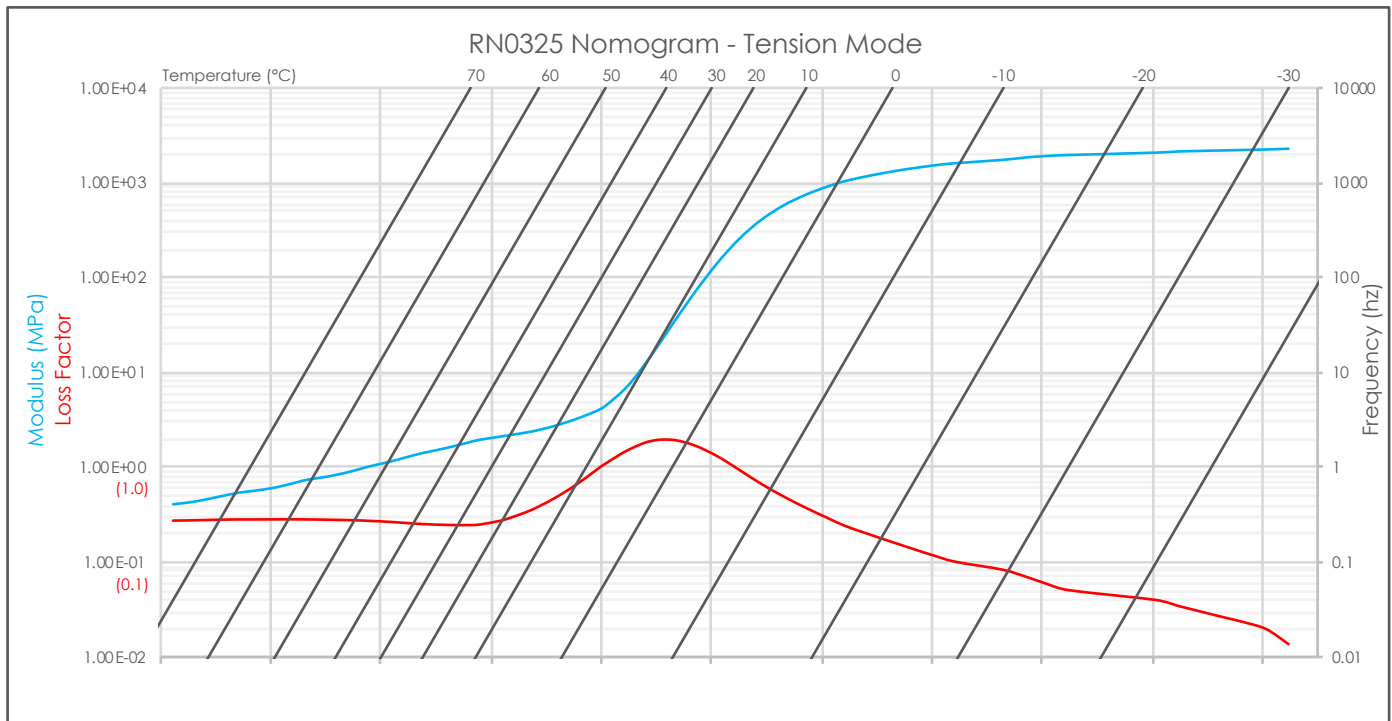
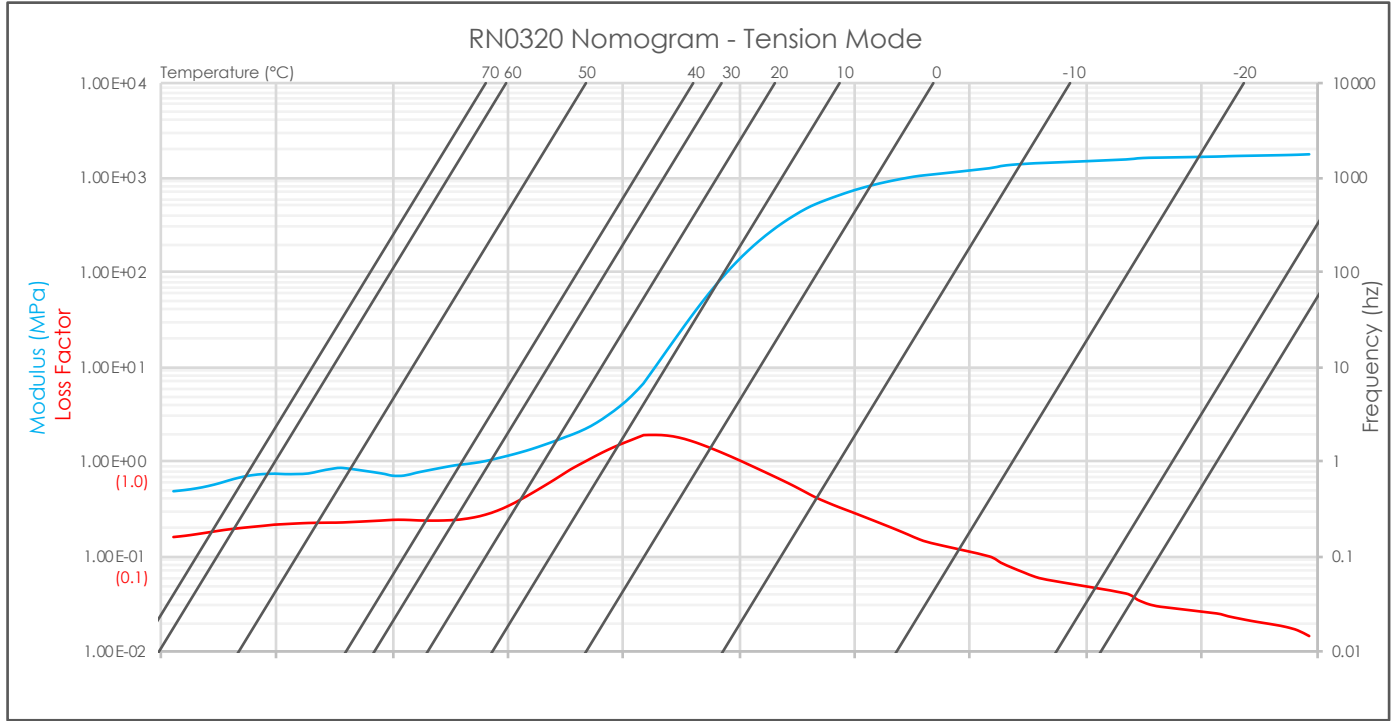
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Typical Properties Continued



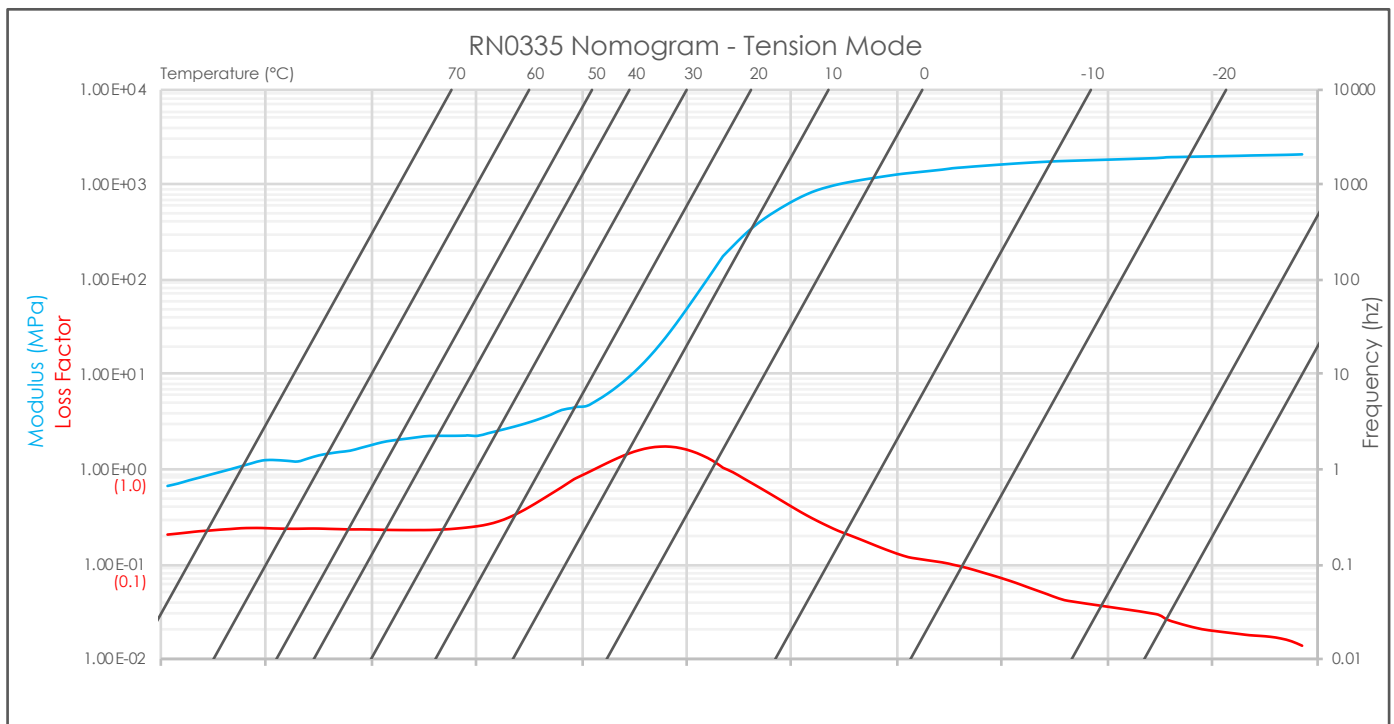
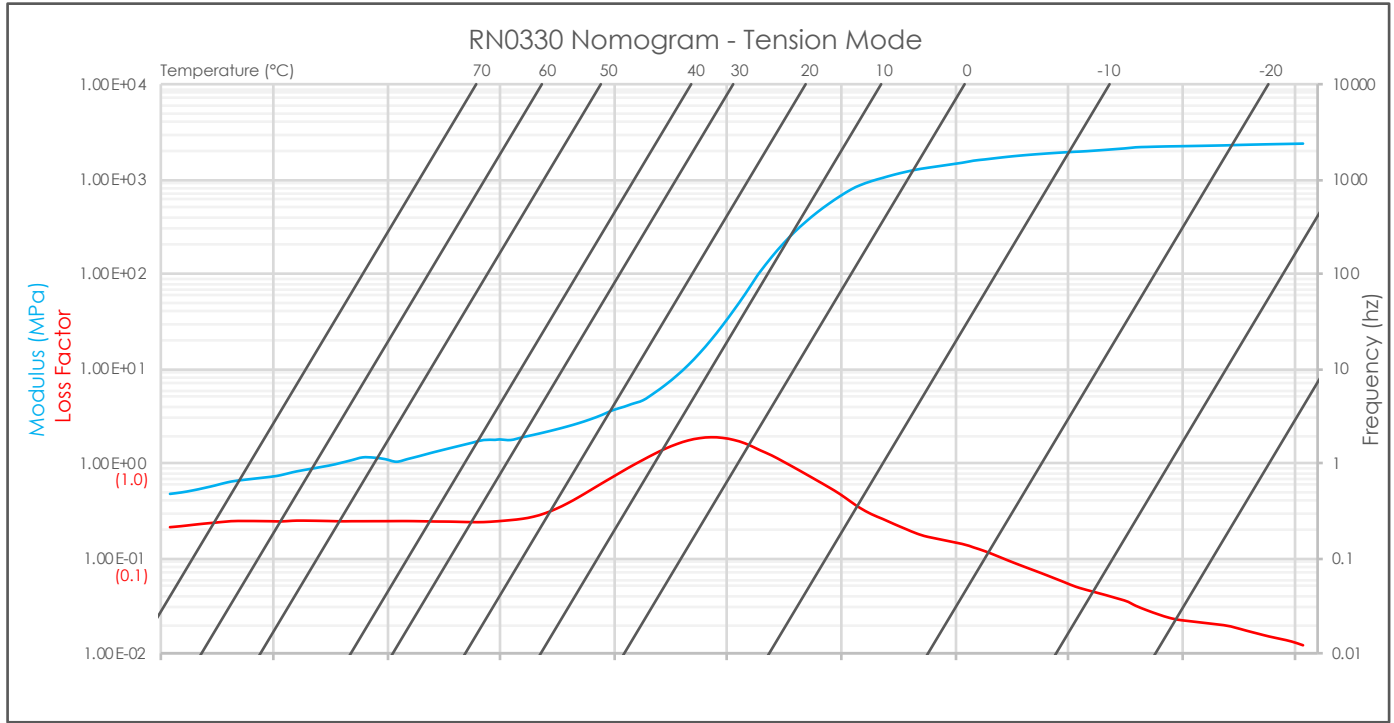
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Typical Properties Continued



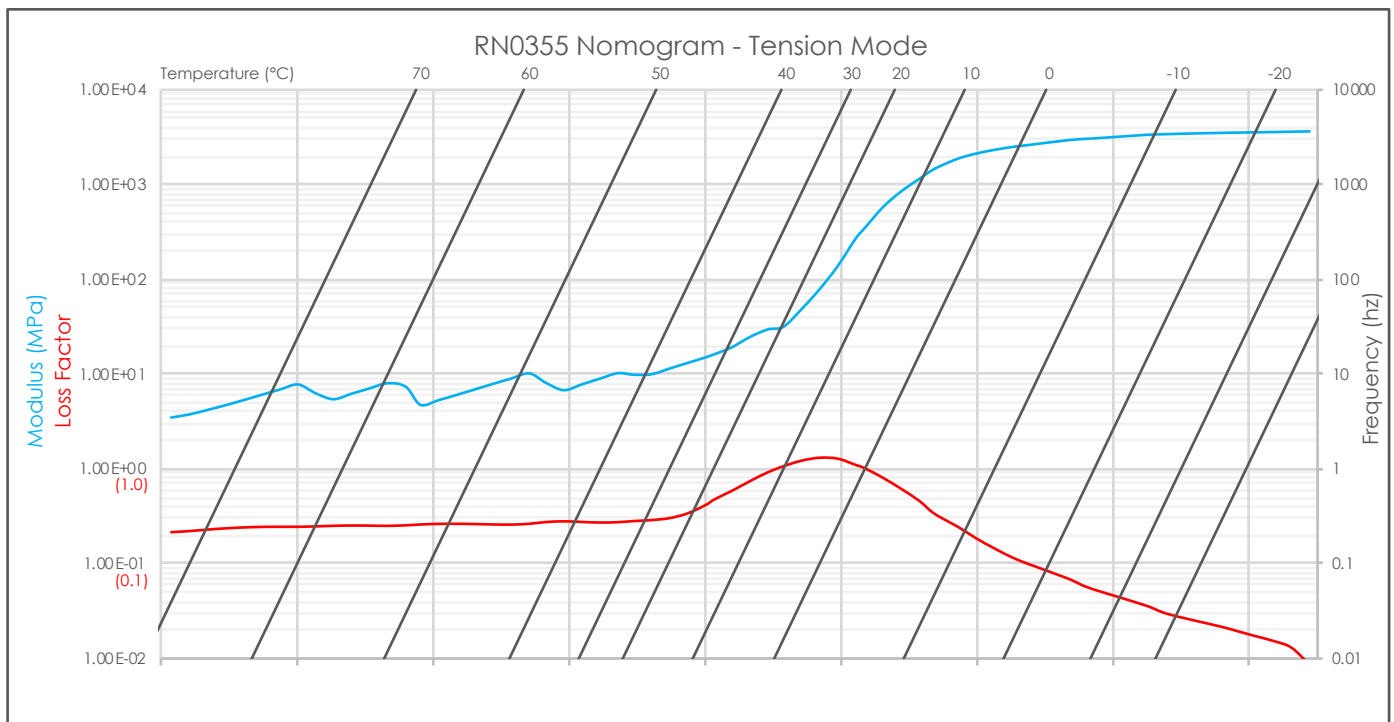
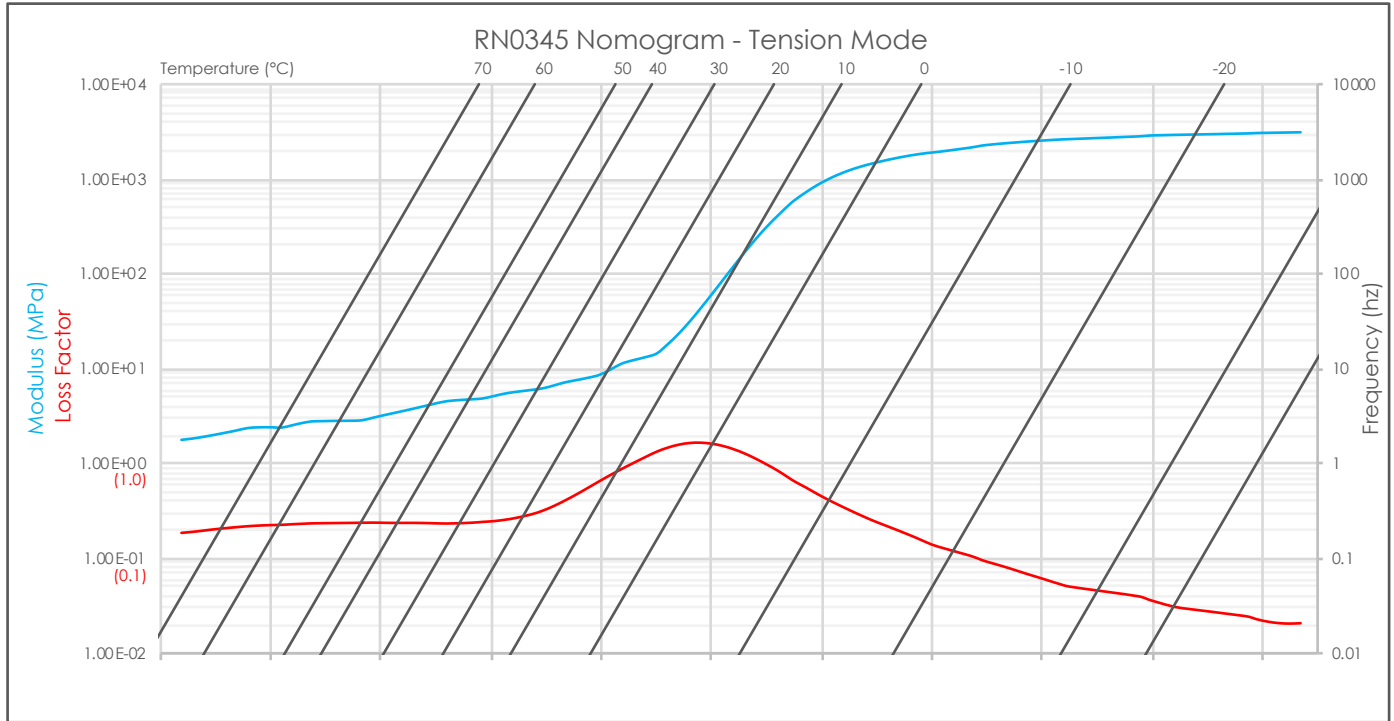
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Typical Properties Continued

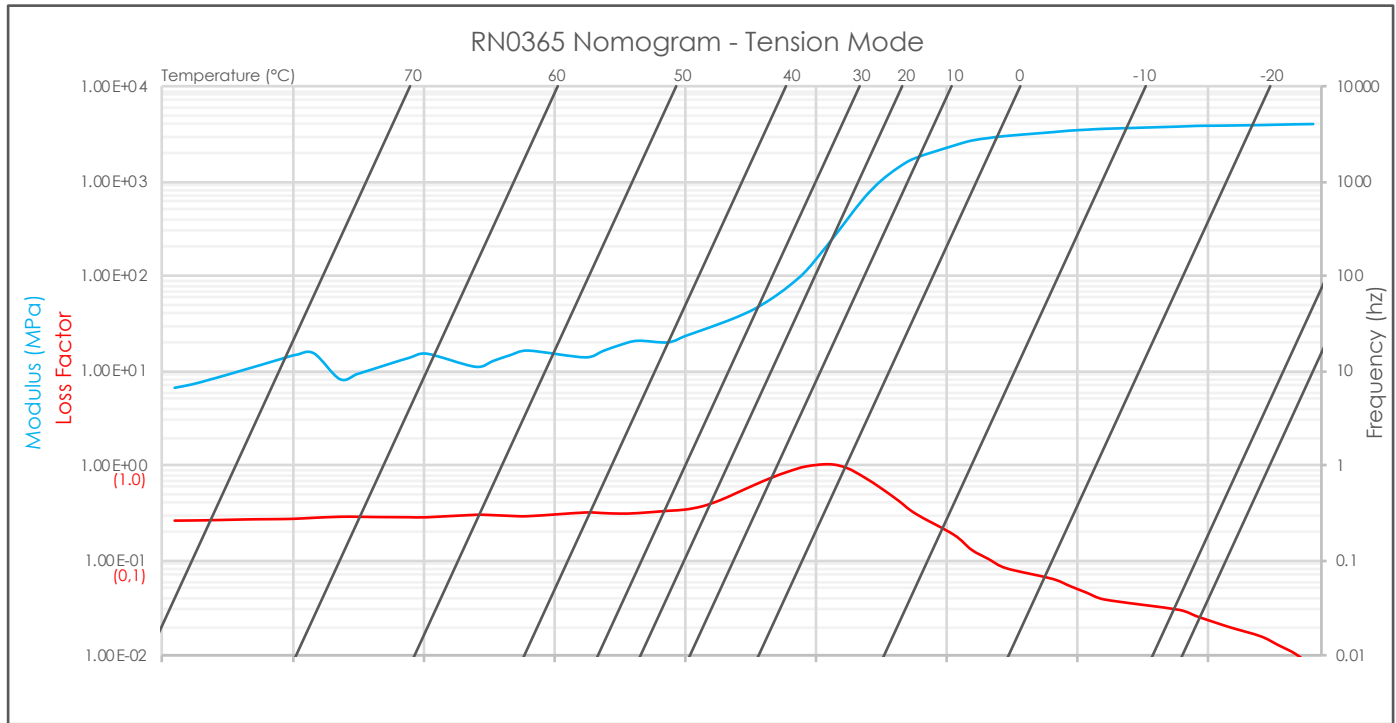


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Typical Properties Continued



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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