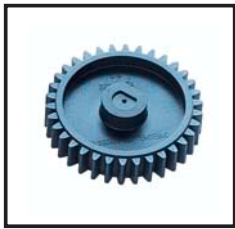


TYPICAL PROPERTIES

VESPEL® TP- 1012BK



THERMOPLASTIC PARTS FOR HIGH-TEMPERATURE APPLICATIONS

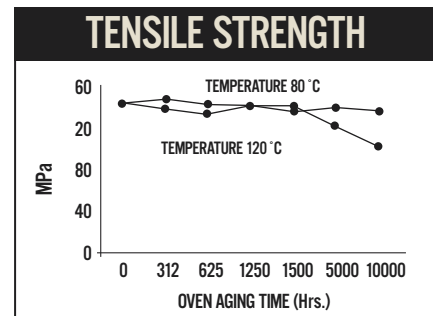
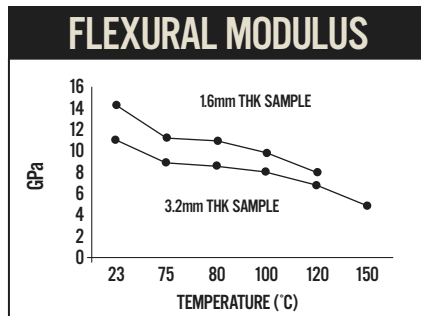
VespeL® TP-1012BK is a high-temperature thermoplastic material tailor-made for dry, unlubricated applications. The combination of high thermal resistance and low coefficient of friction makes this material particularly well suited for dry wear applications such as gears needing excellent wear resistance at high temperature.

And, as part of the VespeL® parts and shapes product line, injection-molded VespeL® TP-1012BK parts comply with the highest quality standards required in the industry.

MECHANICAL		TEST METHOD	SI UNITS	ENGLISH UNITS
TENSILE STRENGTH	23°C/73°F	ASTM D-638	113 MPa	16,400 psi
ELONGATION AT BREAK	23°C/73°F	ASTM D-638	1.0%	1.0%
FLEXURAL STRENGTH	23°C/73°F	ASTM D-790	176 MPa	25,600 psi
FLEXURAL MODULUS	23°C/73°F	ASTM D-790	13.0 GPa	1,900,000 psi
NOTCHED IZOD 3.175 mm/1/8 in.	23°C/73°F	ASTM D-256	27 J/m	0.5 ft. lb./in.
HARDNESS, ROCKWELL M		ASTM D-785	78.8	78.8

THERMAL		TEST METHOD	SI UNITS	ENGLISH UNITS
HDT @ 1.8 MPa (264 psi)		ASTM D-648	160°C	320°F
CTE (23-150°C/73-302°F) FLOW DIRECTION		ASTM E-228	1.02x10 ⁻⁵ cm/cm/°C	0.56x10 ⁻⁵ in./in./°F
CTE (23-150°C/73-302°F) TRANSVERSE DIRECTION		ASTM E-228	6.97x10 ⁻⁵ cm/cm/°C	3.88x10 ⁻⁵ in./in./°F
UL-94, 1.8mm (0.070 in.)		—	V-0	V-0

OTHER PROPERTIES		TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY		ASTM D-792	1.65	1.65



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Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement."