

## TYPICAL PROPERTIES

# VESPEL® TP- 2346



### THERMOPLASTIC PARTS FOR DRY WEAR APPLICATIONS

Vespel® TP-2346 is a blend of polyimide and high-temperature thermoplastic carriers that is 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 at PVs up to 1.75 MPa m/s (50,000 fpm-psi).

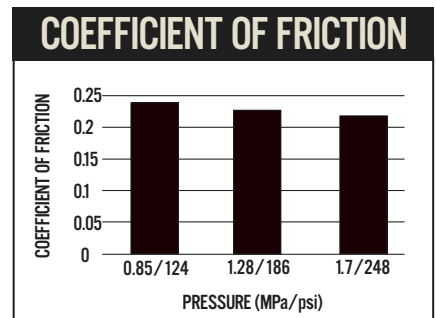
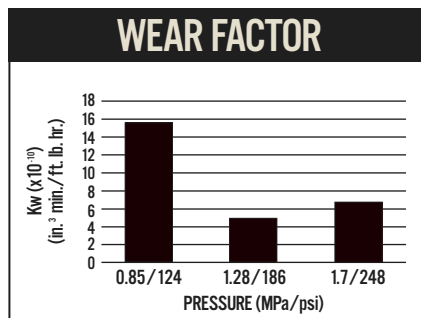
And of course, as part of the Vespel® parts and shapes product line, injection-molded Vespel® TP-2346 parts comply with the highest quality standards in the industry.

MECHANICAL		TEST METHOD	SI UNITS	ENGLISH UNITS
TENSILE STRENGTH	23°C/73°F	ASTM D-638	116 MPa	16,800 psi
ELONGATION AT BREAK	23°C/73°F	ASTM D-638	2.3%	2.3%
FLEXURAL STRENGTH	23°C/73°F	ASTM D-790	98 MPa	14,200 psi
FLEXURAL MODULUS	23°C/73°F	ASTM D-790	6.4 GPa	928,000 psi
NOTCHED IZOD 3.175 mm/1/8 in.	23°C/73°F	ASTM D-256	85 J/m	1.6 ft. lb./in.
UNNOTCHED IZOD	23°C/73°F	ASTM D-256	460 J/m	8.6 ft. lb./in.

THERMAL	TEST METHOD	SI UNITS	ENGLISH UNITS
HDT @ 1.8 MPa (264 psi)	ASTM D-648	265°C	509°F
CTE (23-150°C/73-302°F) FLOW DIRECTION	ASTM E-228	2.6x10 <sup>-5</sup> cm/cm/°C	1.4x10 <sup>-5</sup> in./in./°F
CTE (23-150°C/73-302°F) TRANSVERSE DIRECTION	ASTM E-228	7.9x10 <sup>-5</sup> cm/cm/°C	4.4x10 <sup>-5</sup> in./in./°F

WEAR AND FRICTION	TEST METHOD	SI UNITS	ENGLISH UNITS
PV LIMIT (DRY)	DuPont	1.75 MPa m/s	50,000 psi-fpm
COEFFICIENT OF FRICTION	DuPont	0.22-0.26	0.22-0.26

OTHER PROPERTIES	TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY	ASTM D-792	1.55	1.55
WATER ABSORPTION (24 hrs. @ 23°C/73°F)	ASTM D-570	0.0081%	0.0081%



## For more information about DuPont™ Vespel®:

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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."