

TYPICAL PROPERTIES

VESPEL® CP- 8000 SERIES



BRAIDED SERIES

From a wide selection of graphite, carbon, glass, and even Teflon® PTFE fibers, hollow braids are formed and combined with a variety of polyimides to produce bushings that offer the best combination of properties for applications that require the benefits that a composite structure offers. Toughness, thermal resistance, self-lubricity, and wear resistance are the most common requirements for these Vespel® CP products.

CP-8000			
THERMAL	TEST METHOD	SI UNITS	ENGLISH UNITS
GLASS TRANSITION TEMPERATURE, T _g	Thermal Mechanical Analysis	360°C	680°F
THERMAL EXPANSION COEFFICIENT	—	8.3x10 ⁻⁶ m/m/°C	4.6x10 ⁻⁶ in./in./°F
OXIDATIVE STABILITY 357°C/675°F 321°C/610°F	See note ^a	3.0% Weight Loss —	3.0% Weight Loss —

OTHER PROPERTIES	TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY	ASTM D-792	1.52 gm/cc	1.52 gm/cc

CP-8001			
THERMAL	TEST METHOD	SI UNITS	ENGLISH UNITS
GLASS TRANSITION TEMPERATURE, T _g	Thermal Mechanical Analysis	349°C	660°F
THERMAL EXPANSION COEFFICIENT	—	8.3x10 ⁻⁶ m/m/°C	4.6x10 ⁻⁶ in./in./°F
OXIDATIVE STABILITY 357°C/675°F 321°C/610°F	See note ^a	6.2% Weight Loss 2.4% Weight Loss	6.2% Weight Loss 2.4% Weight Loss

OTHER PROPERTIES	TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY	ASTM D-792	1.54 gm/cc	1.54 gm/cc

CP-8002			
THERMAL	TEST METHOD	SI UNITS	ENGLISH UNITS
GLASS TRANSITION TEMPERATURE, T _g	Thermal Mechanical Analysis	330°C	626°F
THERMAL EXPANSION COEFFICIENT	—	7.2x10 ⁻⁶ m/m/°C	4.0x10 ⁻⁶ in./in./°F
OXIDATIVE STABILITY 357°C/675°F 321°C/610°F	See note ^a	— 2.6% Weight Loss	— 2.6% Weight Loss

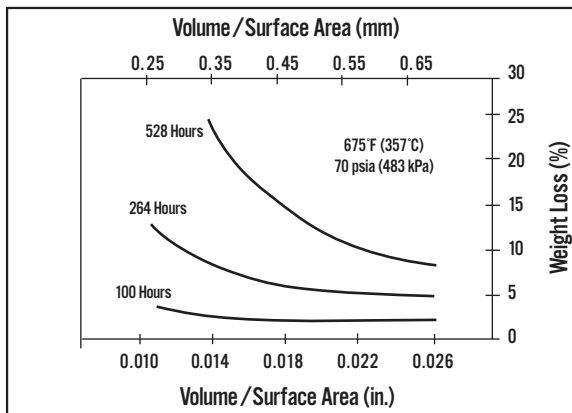
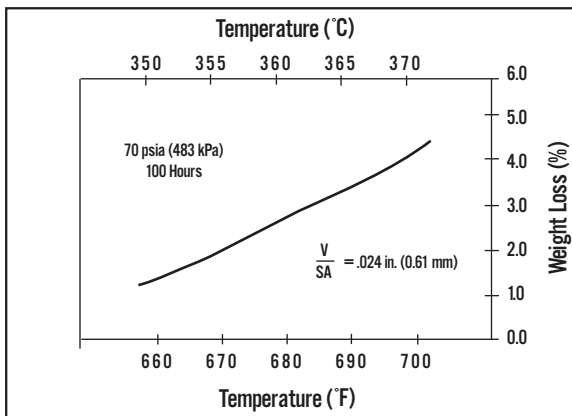
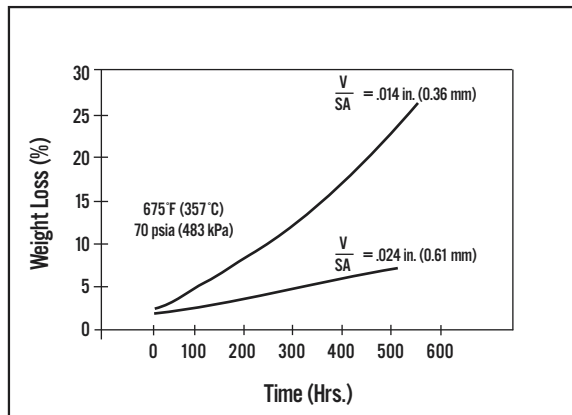
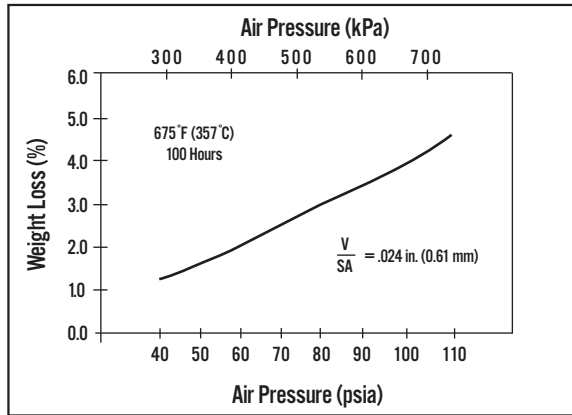
OTHER PROPERTIES	TEST METHOD	SI UNITS	ENGLISH UNITS
SPECIFIC GRAVITY	ASTM D-792	1.47 gm/cc	1.47 gm/cc

^a 100 hours, 70 psia (483 kPa), circulating air, saturated conditions, volume/surface area = .024 in. (0.61 mm).

Note: Each part configuration is custom-designed to optimize process capability and part performance by adjusting resin/fiber ratios, fiber deniers, and braid construction. These design considerations can cause variation from the typical values listed above. Listed properties are based upon technical data that DuPont believes to be reliable. DuPont makes no warranties, expressed or implied, and assumes no liability in connection with use of this information.

THERMAL OXIDATION CURVES FOR CP-8000

(Tests performed in circulating air, saturated conditions.)



For more information about DuPont™ Vespel®:

UNITED STATES

DuPont Engineering Polymers
Pencader Site
Newark, DE 19714-6100
Tel: 800-222-VESP
Fax: (302) 733-8137

EUROPE

DuPont de Nemours
(Belgium) BVBA-SPRL
Engineered Parts Center
A. Spinoystraat 6
B-2800 Mechelen
Belgium
Tel: ++32 15 441527
Fax: ++32 15 441408

ASIA-PACIFIC

Japan DuPont K.K.
Arco Tower
8-1, Shimomeguro 1-chome
Meguro-ku, Tokyo 153-0064
Tel: 03-5434-6989
Fax: 03-5434-6982

Korea DuPont Korea Limited
4/5 Floor, Asia Tower, #726
Yeoksam-dong, Kangnam-ku
Seoul 135-082
Tel: 02-222-5200
Fax: 02-222-5470

Taiwan/ China

DuPont Taiwan Limited
13th Floor, Hung Kuo Building
167, Tun Hwa North Road
Taipei, Taiwan 105
Tel: 02-719-1999
Fax: 02-712-0460

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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."