



NP523

INTRODUCTORY TECHNICAL DATA BULLETIN

GRADE: NP523

NEMA GRADE: --

U. L. LISTED: N

DESCRIPTION: NP523 is a member of the *ShotBlocker*™ family of products. Being a high performance composite manufactured from AGY S-2 Glass® with a high-temperature phenolic resin system, NP523 was developed to comply with stringent Military requirements as a ballistic resistant material. NP523 complies with MIL-L-64154 and MIL-DTL-64154B, Class A, Code 1.

THICKNESS TESTED: 0.500"

TYPICAL PROPERTIES

BALLISTIC PROPERTIES		UNITS	VALUE
V50 Ballistic Limit (0.500")	CAL30FSP	fps	2621
GENERAL PHYSICAL PROPERTIES		UNITS	VALUE
Specific Gravity (0.500")		-	2.06
Rockwell Hardness (0.500")		M Scale	98
Moisture Absorption (0.500") Condition D _i -24/23		%	1.4
Flexural Strength (0.500") Condition A	LW / CW	psi	26,500 / 24,300
Hot Flex Strength (0.500") Condition E-1/150, T-150	LW / CW	psi	16,600 / 14,400
Flexural Modulus (0.500") Condition A	LW / CW	kpsi	4,440 / 4,060
Hot Flexural Modulus (0.500") Condition E-1/150, T-150	LW / CW	kpsi	3,780 / 3,670
Tensile Strength (0.500") Condition A	LW / CW	psi	80,600 / 46,800

Hot Tensile Strength (0.500") Condition E-1/150, T-150	LW / CW	psi	69,600 / XX,XXX
Tensile Modulus (0.500") Condition A	LW / CW	kpsi	670 / 620
Izod Impact Strength (0.500") Condition E-48/50	LW / CW	ft-lb/in notched	42.2 / 41.7
Compressive Strength (0.500") Condition A	Flatwise	psi	95,200
Hot Compressive Strength (0.500") Condition E-1/150, T-150	Flatwise	psi	94,400
Compressive Modulus (0.500") Condition A	Flatwise	kpsi	746.2
Bond Strength (0.500") Condition A		lb	810
Condition D-48/50			590
Shear Strength (0.500")	Perpendicular	psi	28,200

THERMAL & ELECTRICAL PROPERTIES	UNITS	VALUE
Temperature Index Electrical / Mechanical	°C	210 / 150 ¹
Flammability Rating - U. L. 94 (0.500")	Class	V0
Breakdown Voltage (0.500") Condition A	kV	57.0
Condition D-48/50		0.0

¹ NEMA LI-6: This temperature is a recommendation only, and based upon experience in various applications. The maximum operating temperature is dependent upon the application and should be investigated prior to use.

This data, while believed to be accurate and based on reliable analytical methods, is for informational purposes only. The terms and conditions of the agreement under which it is sold will govern any sales of this product. Data supplied above are "typical values"; not to be considered "specification values".

It is the responsibility of the users of this information to make sure that they have the latest version of this TDB, and are urged to check with Customer Service or, preferably our web site, www.norplex-micarta.com, to determine if information is most current.

Specification writers: Contact Norplex-Micarta for specification values before submission.