



NP524

INTRODUCTORY TECHNICAL DATA BULLETIN

GRADE: NP524

NEMA GRADE: --

U. L. LISTED: N

DESCRIPTION: NP524 is a member of the *ShotBlocker*™ family of products. Being a high performance composite manufactured from OCV Technical Fabrics ShieldStrand™ reinforcement with a high-temperature phenolic resin system, NP524 was developed to comply with stringent Military requirements as a ballistic resistant material.

THICKNESS TESTED: 0.482", 0.500"

TYPICAL PROPERTIES

BALLISTIC PROPERTIES		UNITS	VALUE
V50 Ballistic Limit (0.500")	CAL30FSP	fps	2,600
GENERAL PHYSICAL PROPERTIES		UNITS	VALUE
Specific Gravity (0.482")		-	2.07
Rockwell Hardness (0.482")		M Scale	108
Moisture Absorption (0.482") Condition D _i -24/23		%	1.3
Flexural Strength (0.482") Condition A	LW / CW	psi	26,000 / 24,900
Hot Flex Strength (0.482") Condition E-1/150, T-150	LW / CW	psi	19,300 / 18,800
Flexural Modulus (0.482") Condition A	LW / CW	kpsi	4,360 / 4,450
Hot Flexural Modulus (0.482") Condition E-1/150, T-150	LW / CW	kpsi	3,900 / 3,520
Tensile Strength (0.482") Condition A	LW / CW	psi	68,000 / 66,000

Hot Tensile Strength (0.482") Condition E-1/150, T-150	LW / CW	psi	38,500 / 28,800
Tensile Modulus (0.482") Condition A	LW / CW	kpsi	315 / 314
Izod Impact Strength (0.482") Condition E-48/50	LW / CW	ft-lb/in notched	39.6 / 39.6
Compressive Strength (0.482") Condition A	Flatwise	psi	87,800
Hot Compressive Strength (0.482") Condition E-1/150, T-150	Flatwise	psi	89,900
Compressive Modulus (0.482") Condition A	Flatwise	kpsi	1,020
Bond Strength (0.482") Condition A		lb	750
Shear Strength (0.482")	Perpendicular	psi	43,900

THERMAL & ELECTRICAL PROPERTIES	UNITS	VALUE
Temperature Index Electrical / Mechanical	°C	210 / 150 ¹
Flammability Rating - U. L. 94 (0.482")	Class	V0
Breakdown Voltage (0.482") Condition A	kV	42
Condition D-48/50		7

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.