

MATLINE

LAMINATE BULKER



Matline non-woven polyester laminate bulker material features outstanding properties at an amazingly competitive price.

Ease of use
Constant thickness
Deformability
Anti-shrinkage
Low resin consumption
Permanent bulk
Print-through blocking
Excellent fatigue resistance
Cost and labor effectiveness

Matline is available in the following thickness:

Matline 101 (1.4mm)
Matline 201 (2mm)
Matline 301 (3mm)
Matline 401 (4mm)
Matline 501 (5mm)

		Matline 101	Matline 201	Matline 301	Matline 401	Matline 501
Dry Weight	g/m ² oz/ sqy	55 1.61	70 2.06	110 3.24	140 4.13	185 5.44
Dry Thicknes	mm mils	1.4 55	2 79	3 118	4 158	5 197
Resin Impregnated Thickness	mm mils	1.3 55	1.9 75	2.9 114	3.9 154	4.9 193
Roll length	m ft	100 328.08	80 262.47	50 164.04	40 131.23	30 98.43
Roll Width	Cm Inch	100 39.4	100 39.4	100 39.4	100 39.4	100 39.4
Impregnated Specific Weight(Density)	g/cm ³ lb/in ³	0.81 0.029	0.67 0.024	0.66 0.024	0.65 0.024	0.65 0.023
Resin Consumption	kg/m ² lb/ sgy	1 1.83	1.2 2.2	1.8 3.3	2.4 4.5	3.0 5.5

Compression

Matline 300	436,450	422,095
Coremat P2430	379,030	355,250
U-Pica Mat I3000	344,665	372,940
COMPRESSION	MODULUS MD	MODULUS XD

Impact Strength

Matline 300	9,802	9,729.5
Coremat P2430	7,264.5	6,452.5
U-Pica Mat I3000	6,902	6,786
Impact	MD	XD

Shear Strength

Matline300	1,406.5
Coremat P2430	696
U-Pica MatI3000	971.5

Water Absorption

Matline 300	0.24
Coremat P2430	0.25
U-Pica Mat I3000	0.22

(UP Resin)	Unit	CSM450 Matline101 CSM450 MD XD	CSM450 Mat- line301 CSM450 MD XD	CSM450 Mat- line301CS M450 MD XD	CSM4 50 Mat- line4 01 CSM4 50 MD XD	CSM450 Matline 501CSM 450 MD XD	Test Method
Tensile Strength	MPa	3768	3768	3280	2560	2660	
Modulus	Mpa	57.6	57.6	3450	30	30	2546
At Break	%	2.4	2.4	45 49	2	2	35.5
Elongation				2 2	2	2	2.3
Flexural Strength	MPa	6783	7009	6640	5380	6030	
Modulus	Mpa	174.1	162.1	6550 140	105	110	5377
At Break	mm	4	4.7	180 2	2	2	94
Elongation				2	2	2	5.9
Compression Modulus	MPa	2904	2741	3010	2270	2340	2060
Shear Strength	MPa	7.6	8.2	2910	6.2	7.9	ISO 604
Impact Strength	kJ/m2	48.3	40.7	67	38	48	64.2
Water Absorption	0%	<0.38	<0.31	67	<0.5	0	<0.27
							ISO 180
							ISO 62

Superior Impact and Shear Strength's as compared to main competitors results from stronger links between the different layers within the mat as well as excellent resin distribution throughout the product. The excellent impact values illustrate the ability of the laminate to bear external mechanical aggression. The performance of Matline is well above competition with 35-50% higher shock resistance. This is another reason products using Matline obtain longer useful life cycles. Even cross-laid fiber distribution of the product brings additional reinforcement characteristics versus competitive products. Water absorption is equivalent to competition.

MATLINE PERFORMANCE CHARACTERISTICS INCLUDE:

- Print blocking: Thinner-grade Matline is a very effective print-through barrier when placed behind a skin coat.
- Screw retention: Matline adds excellent screw retention capability to a laminate, and can be placed, for example, around the perimeter of swim platforms for rub rail installation.
- Microcracking prevention: Matline reduces demolding cracks and stress cracks in gel coated parts.

Most laminate bulkers available in the marketplace today are made of polyester fiber and glass microspheres. Only Nida-Core Matline has MULTI-DIRECTIONAL fiber orientation. Unlike the unidirectional fiber orientation used in bulker products manufactured by most of our competitors, our multi-directional fiber orientation provides equal strength characteristics in both length and width directions. It also helps in wetting out the laminate equally in both directions, as opposed to easier wet out in one direction in linear fiber products. The results of tests performed by certified labs in Europe and North America on products made by our principal competitors demonstrate that Matline exhibits superior impact and shear strength, thanks to stronger links between the different layers within the mat as well as excellent resin distribution throughout the

product. Matline's excellent impact values underscore the ability of the Matline-reinforced laminate to meet toughness requirements and withstand severe-duty fatigue.

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All tests carried out by independent laboratory. This information is provided in good faith and is subject to modifications without prior notification. It does not constitute a commitment, neither a contractual document. Nida-Core Corp will not assume any liability form use or misuse of data presented herein. Assessment of suitability is the responsibility of end user only.

Several products offered by Nida-Core Corp. are approved by:

