



Marine ULTIMATE U MPV/G 20 – 90, U MPN 20 – 100, U MPA 20 – 120 Slabs faced and unfaced

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ULTIMATE mineral wool provides a unique high-performance profile: it combines safety, comfort and ease of handling.



Fire insulation

ULTIMATE provides effective fire resistance, but also very good performance in reaction to fire.



Thermal insulation

Excellent thermal insulation combined with unique efficiency.



Acoustic insulation

Improved acoustic comfort due to its excellent sound absorption and sound insulation properties.



Light weight

Increase insulation – reduce weight. ULTIMATE combines high fire & thermal performance with very low weight.



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Characteristic	Symbol	Unit	Quantities and measured values										Standard
Application fields	-	-	Thermal insulation, acoustic insulation and fire protection constructions in shipbuilding.										-
Material	-	-	Mineral wool with quality mark RAL by the Gütegemeinschaft Mineralwolle e.V., unrisky regarding health according to German decree on dangerous substances, decree on prohibition of chemicals and to guideline EU 97/69 Nota Q.										-
Thermal conductivities	T	[°C]	0	10	50	100	150	200	250	300	350	400	EN 12 667
U MPN/A/V/G 24	$\lambda_{N,P}$	[W/(m·K)]	0,032	0,033	0,039	0,048	0,062	0,077	0,095	0,118	-	-	
U MPN/V 34	$\lambda_{N,P}$	[W/(m·K)]	0,031	0,032	0,038	0,047	0,057	0,070	0,084	0,099	-	-	
U MPN/A/V/G 36	$\lambda_{N,P}$	[W/(m·K)]	0,031	0,032	0,038	0,047	0,057	0,070	0,084	0,099	-	-	
U MPN/A/V/G 48	$\lambda_{N,P}$	[W/(m·K)]	0,030	0,031	0,036	0,044	0,053	0,063	0,074	0,085	0,098	-	
U MPN/A/V/G 66	$\lambda_{N,P}$	[W/(m·K)]	0,029	0,030	0,035	0,042	0,050	0,058	0,067	0,078	0,090	-	
U MPN/A 85	$\lambda_{N,P}$	[W/(m·K)]	0,029	0,030	0,033	0,040	0,047	0,055	0,063	0,073	0,085	0,094	
U MPN/A/V/G 90	$\lambda_{N,P}$	[W/(m·K)]	0,029	0,030	0,033	0,040	0,046	0,053	0,060	0,070	0,080	0,090	
U MPN/A 100	$\lambda_{N,P}$	[W/(m·K)]	0,029	0,030	0,033	0,040	0,045	0,051	0,058	0,068	0,077	0,087	
U MPA 120	$\lambda_{N,P}$	[W/(m·K)]	0,029	0,030	0,033	0,040	0,045	0,051	0,058	0,068	0,077	0,087	
Thermal behaviour	-	[°C]	≤ 650 by pure thermal stress (U MPN 40 – 100) ≤ 600 by pure thermal stress (U MPN 25 – 30) ULTIMATE U MPN/A/V/G : The thickness of the insulating layer has to be correctly dimensioned so that the faced side is exposed to a maximum of 100 °C. From 150 °C on the binder starts to volatilise.										EN 14706
Behaviour in fire	-	-	Melting point according to DIN 4102, part 17: ≥ 1000 °C. Non combustible according to IMO-Resolution MSC.61(67)-(FTP- Code), IMO MSC/Circ. 1120. Homologated for shipbuilding according to EC Type Examination Certificate Nr.: ULTIMATE U MPN 20 – 100 114.477 ULTIMATE U MPA 20 – 120 114.483 ULTIMATE U MPG 20 – 90 114.480 ULTIMATE U MPV 20 – 90 114.484 U MPN 90: certified construction for A 60 (floating floor) 100.185; top-layer only according to static calculation										DIN 4102 IMO
Thermal coefficient of expansion	α	1/K	No change in dimensions within the application field.										-
Water vapour diffusion resistance factor	μ	-	~ 1,0										EN 12086
Specific thermal capacity	c	[kJ/(kg·K)]	~ 1,0										-
Dynamic stiffness	s'	MN/m ³	U MPN 90: ≤ 7					U MPN 100: ≤ 8					-
Air flow resistivity	σ	[KPa·s/m ²]	U MPN 24: ≥ 12 U MPN 34/36: ≥ 20 U MPN 48: ≥ 30 U MPN 66: ≥ 48 U MPN 80-100 : ≥ 70										EN 29053
Chemical behaviour	-	-	Sulphide free. Low chloride content on demand. Water repellent content on demand.										AGI Q 132
Facing	-	-	U MPA 20 – 120 : one-sided faced with reinforced aluminum foil U MPV 20 – 90 : one-sided faced with black glass tissue U MPG 20 – 90 : one-sided faced with glass fabric with a gram weight of 120g/m ² , 220 g/m ² or 420 g/m ²										-
Instruction for transformation	-	-	Can be cut and punched. Due to the differentiation of density optimal delivery forms are possible for each application field.										-
Miscellaneous	-	-	ISOVER is certified according to EN ISO 9001 and EN ISO 14001.										EN ISO 9001 EN ISO 14001

Delivery form*			
	Width	Length	Thickness
Panel 24-36	600	1.200 (1.250)	50, 60, 80, 100 mm
Panel 48-66	600	1.200 (1.250)	30, 40, 50, 60, 80, 100 mm
Panel 90-100	600	1.200 (1.250)	30, 40, 50, 60 mm

* on some products, minimum order quantities are requested

** further dimensions on request

www.isover-technical-insulation.com

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