



ECONOMY + EXCELLENCE + ETHICS

**MERINO INDUSTRIES LTD.**

CIN: U51909WB1965PLC026556

GSTIN: 09AAACC9186C1ZL

Village Achheja, Delhi Road,

P.O. Hapur - 245101

Dist- Hapur (U.P.)

P 0122- 3512500, 2308900

F 0122- 2306998

E merinohapur@merinoindia.com

W www.merinoindia.com

**DECLARATION OF PERFORMANCE**

No: DOP/04/2022

1. Unique identification of the product type:  
Exterior Compact Laminate Double side with thickness 6.00 mm & 8.00 mm  
Design No: 22109, 22091, 22169
2. Type No. : EGF grade Exterior Compact Laminates
3. Intended use of the construction product, in accordance with EN 438-7: 2005  
For use as Compact Laminate panels/ sidings for Exterior Wall Finishes
4. Name of the Manufacturer: **MERINO INDUSTRIES LTD.**
5. All Provisions relating to the Assessment & Verification of Constancy of Performance (AVCP) described in Annex - ZA of the harmonized standard(s) under AVCP system -1 have been applied.
6. Harmonized Standard Reference: EN 438-7: 2005
  - a. Initial type testing and factory production control as per EN 438-7: 2005, Clause 5.3 and ISO 9001: 2015 (Cert. No: IND. 20.10908U-1)

7. Declared Performance

Essential Characteristics	Performance	Harmonized Technical Specification
Reaction to Fire	NPD	EN 438-7: 2005
Fire Resistance	NPD	
Water Vapor Permeability	NPD	
Resistance to Fixings	NPD	
Direct Airborne Sound Insulation	NPD	
Flexural Tensile Strength	Pass	
Thermal Resistance/ Conductivity	NPD	
Release of Formaldehyde	E1	
Sound Absorption	NPD	
Durability	Pass	

8. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 6. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4. Signed for and on behalf of the manufacturer by:

(Name & Signature)

Rajeev Chauhan

HOD - Quality Deptt

DT: 19/4/22





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**Test Values of Merino Standard Grade Compact Laminate as per (EN438-4)  
Thickness 8.00 mm**

<b>Properties</b>		<b>Test Method as per EN 438-2 CLAUSE NO. Unless otherwise stated</b>	<b>Standard values of CGS Grade</b>	<b>Test Result of MERINO CGS</b>
<b>Length &amp; Width Tolerance</b>		6.4.6	+10 mm - 0 mm	+8mm -0mm
<b>Thickness Tolerance (As per EN-438, Table1)</b>		$8.0 \leq t \leq 12.0$	$\pm 0.50$	$\pm 0.40$
<b>Compact Density (g/cm<sup>3</sup>) (min)</b>		ISO1183	1.35	1.40
<b>Resistance to Surface wear Revolutions (min)</b>		10	$\geq 350$	400
<b>Resistance to immersion in Boiling water (Max. %)</b>	Increase in Thickness	12	2	1.02
	Increase in Mass.		2	0.92
	Appearance (Grade not worse Than)		4	4
<b>Resistance to Dry Heat at 180°C Appearance (Grade not worse Than)</b>	Gloss	16	3	4
	Others		4	4
<b>Dimensional Stability at elevated temp. (Max. %)</b>	Machine Direction	17	0.30	0.26
	Cross Direction		0.60	0.40
<b>Resistance to Impact by Large -Diameter Ball</b>	Drop Height mm (min.)	21	1800	2000





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<b>Resistance to Staining</b> (Grade not Worse than)	Group 1 & 2	26	5	5
	Group 3		4	4
<b>Resistance to Cigarette Burns</b> Appearance (Grade not Worse than)		30	3	3
<b>Resistance to Color change</b> In Xenon arc Light		27	4 to 5 (Grey Scale)	5 (Grey Scale)
<b>Resistance to Water Vapour</b> Appearance (Grade not Worse than)		14	4	4
<b>Resistance to Crazeing</b> Appearance (Grade not Worse than)		24	4	4
<b>Flexural Modulus Stress</b> min. (Mpa)		ISO178	9000	10500
<b>Flexural Strength</b> min. (Mpa)		ISO178	80	100
<b>Tensile Strength</b> min. (Mpa)		ISO 527	60	80

Signature

QC In charge

Signature

Sr. Manager (QC)





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**Test Values of Merino Standard Grade Compact Laminate as per (EN438-4)  
Thickness 6.0 mm**

Properties		Test Method as per EN 438-2 CLAUSE NO. Unless otherwise stated	Unit (Max. or Min)	Standard values of CGS Grade	Test Result of MERINO CGS
Length & Width Tolerance		6		+10 mm - 0 mm	+8mm -0mm
Flatness (Deviation) - (mm/m)		9	$6.0 \leq t \leq 10.0$	$\leq 5.0$	$< 5.0$
Thickness Tolerance (As per EN-438, Table-2)		5	$5.0 \leq t \leq 8.0$	$\pm 0.40\text{mm}$	$\pm 0.30\text{mm}$
Compact Density (g/cm <sup>3</sup> )(min)		EN ISO1183	g/cm <sup>3</sup>	1.35	1.40
Resistance to Surface wear		10	Revolutions (min)	IP>150 FP>350	IP-300 FP-500
Resistance to immersion in Boiling water	Increase in Thickness	12	% max $t \geq 5.0$	2	1.15
	Increase in Mass		% max $t \geq 5.0$	2	1.05
	Appearance		Rating (Min) Gloss Finish Other Finishes	3 4	4 4
Resistance to Dry Heat at 180°C Appearance		16	Rating (min) Gloss Finish Other Finishes	3 4	4 4
Dimensional Stability at elevated temp. (Max. %)	Machine Direction	17	% max $t \geq 5.0$	0.30	0.25
	Cross Direction		% max $t \geq 5.0$	0.60	0.45
Resistance to Impact by Large -Diameter Ball	Drop Height mm (min.)	21	mm (min) $t \geq 6.0$	1800	>1800





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<b>Resistance to Scratching</b>	25	Rating (min) Annex-A Smooth Finishes Textured Finishes	2 3	2 3
<b>Resistance to Staining</b> (Grade not Worse than)	26	Rating (min) Group 1 & 2 Group 3	5 4	5 4
<b>Resistance to Cigarette Burns</b> Appearance	30	Rating (min)	3	4
<b>Light Fastness</b> ( Xenon arc )	27	Gray Scale Rating	4 to 5	5
<b>Resistance to Water Vapour</b> (Appearance)	14	Rating (min) Gloss Finish Other Finishes	3 4	4 4
<b>Resistance to Crazing</b> Appearance	24	Grade (min)	4	4
<b>Flexural Modulus Stress</b>	ISO178	Mpa (min)	9000	>10000
<b>Flexural Strength</b>	ISO178	Mpa (min)	80	>100
<b>Tensile Strength</b>	ISO 527	Mpa (min)	60	>80

Signature  
QC In charge

Signature  
Sr. Manager (P&T)



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## Test Values of Merino Exterior Wall Cladding as per EN-438

Thickness: 8 mm

Grade: EGF

Property	Test Method as EN:438-2	Property or Attribute	Unit of Measurement (max or min)	Standard values	Merino Values
Thickness Tolerance	5	Dimension	$8.0 \leq t < 12.0$	$\pm 0.50$ mm	$\pm 0.40$ mm
Length and Width	6	Dimension	mm	+ 10	+8
				- 0	-0
Density	EN ISO 1183		g/cm <sup>3</sup>	1.35	1.40
Resistance to Surface wear	10	Wear Resistance (IP)	Revolution(min)	150	175
Resistance to Immersion in boiling water	12	Increase in Mass	% (max)	3.0	1.05
		Increase in Thickness	% (max)	6.0	2.15
		Surface Appearance (Finishes except gloss)	Rating (min)	4	4
		Edge Appearance	Rating (min)	3	3
Resistance to Water Vapour	14	Appearance (Finishes except gloss)	Rating (min)	4	4
Dimensional Stability at Elevated temp.	17	Cumulative dimensional change	Machine direction (max %)	0.30	0.25
			Cross direction (max %)	0.60	0.45
Resistance to Impact (Large dia ball)	21	Drop Height	mm (min)	1800	>1800
Resistance to Crazeing	24	Appearance	Grade (min)	4	4
Resistance to Scratching	25	Force (Rating min)	-Smooth Finish	2	2
			-Textured Finish	3	3
Resistance to Stains	26	Appearance	Group 1 & Group 2	5	5
			Group 3	4	4
Light Fastness (Xenon Arc)	27	Contrast	Grey Scale Rating	4-5	5
Flexural Modulus	EN ISO 178	Stress	MPa (min)	9000	>10500
Flexural Strength	EN ISO 178	Stress	MPa(min)	80	>95
Formaldehyde Content	EN 717-1/ EN 13986	Content	Compliance Class	Class E1	

Properties	Test method as per EN 438-2 Clause No	Property or attribute	Unit (max or min)	EGF	Merino Value
Resistance to UV-light	28	Contrast Appearance	*Gray scale (min) *Rating (min)	No Requirement No Requirement	Fulfilled Fulfilled
Resistance to Artificial Weathering	29	Contrast Appearance	*Gray scale (min) *Rating (min)	3 4	3.5 4
Reaction to Fire	EN -13501	Euro Classification			Class B,s1,d0

\*As per table

### Contrast

Rating Scale for assessing change in colour using the gray scale

Gray Scale N° 5	No change of colour
Gray Scale N° 4.5	Very small change of colour
Gray Scale N° 4	Small change of colour
Gray Scale N° 3.5	Recognizable change of colour
Gray Scale N° 3	Clearly Recognizable change of colour
Gray Scale N° 2.5	Very Clearly Recognizable change of colour
Gray Scale N° 2	Strong change of colour
Gray Scale N° 1	Very Strong change of colour

### Appearance

Rating Scale for assessment of appearance according to EN 438-2

Rating 5	No Visible Change
Rating 4	Change of Gloss only
Rating 3	Hairline Surface Cracks and/or erosion of surface
Rating 2	Surface Cracks
Rating 1	Blistering and/or delamination



