

carbonzero<sup>hpl</sup>

# Solocore

TECHNICAL DATA SHEET

# carbonzero<sup>®</sup>hpl

## Solocore

### Composition

Solocore is manufactured with melamine resin and multiple layers of special decorative papers for high design and high wear resistance. This assembly is subjected to a specific pressure of 100 kg. /cm<sup>2</sup> and temperature of 135 °C (275 °F). Once pressed, Solocore is cut in nominal dimensions and sanded on the back to enhance its grip when adhesive is applied on the wood substrate.

### Recommended Applications

Solocore is specially designed for applications in commercial and institutional projects. Wherever a high pressure decorative surface is required, by use or design, to have the same color throughout its core. Thus, giving a homogeneous look. Its solid appearance and high wear resistance gives it unique design, durability and beauty properties. Especially recommended for beauty saloon furniture, drugstores, boutiques and department stores among others.

### Important Considerations

Solocore is suited for indoor use only and is not to be used as structural material. Available in matte and gloss finishes for standard vertical or horizontal applications (Non post-forming). The hue and final color of Solocore laminate may vary slightly when compared to our traditional HPL. We suggest to ask for samples. We recommend using Moisture Resistant (MR) as the substrate for Solocore. For any additional information please contact our representatives.

product availability								
LAMINATE TYPE	CarbonZero GRADE	NOMINAL THICKNESS	SIZES				FINISHES	
		mm (inches)	feet				Gloss	Matte
			4 x 8	4 x 10	5 x 8	5 x 12		
			meters					
			1.22 x 2.44	1.22 x 3.06	1.53 x 2.44	1.53 x 3.66		
Solocore	50	1.00 (0.039)	yes	yes	no	no	yes	yes
BT10/02-09/REV 0								

\*Nominal dimension without oversize

\*Please request finish availability

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### Useful Information

1. Solocore needs to be conditioned and stored in a dry and ventilated place, never to be placed outdoors. Must be stowed horizontally and stored at room temperature if possible lower ambient of 86°F and relative humidity less than 60%. To prevent deterioration of the top sheet in stowage it is recommended to turn it backwards, sanded side up. Due to its rigidity and thickness it should be flat packed, never rolled.
2. During adhesive selection there are several alternatives, the most common is solvent base neoprene contact cement, recommended for manual applications where the pressure is low . When it comes to industrial applications we recommend to use PVA adhesives (ethyl polyvinyl), which are not reactivated with heat and have high moisture resistance. For a good Solocore laminate adhesion we recommend using between 80 and 140 g / m<sup>2</sup> PVA adhesive and exerting a pressure of 7 to 9 Kg. / cm<sup>2</sup>. If adhesive residue is left in the laminate after the application, clean the surface with a soft cloth dampened in organic solvent or in a 50: 50 mixture of alcohol-organic solvent.
3. Due to its monolithic composition, please follow these guidelines for cutting, drilling and milling to avoid chipping. For cutting use saws in speeds of 8-12 m / min and from 3.000 to 5.500 rpm. We suggest diamond tooth disks with alternating flat trapezoidal geometry. When routing use end mills 12,000 r.p.m. minimum. To drill the laminate use 10,000 rpm drill with tungsten-carbide bi angular tip. The selected bit must be 0.002 inch (0.05 mm.) larger than the specified orifice diameter to perform.
4. Solocore is available in matte and gloss finish. For horizontal high usage surfaces like counter tops, work surfaces, etc. We recommend using protective elements like wood or ceramics when cutting or placing hot objects (above 135 ° C temperature), such as pans hot oil and iron, among others, to prevent deterioration of the surface.
5. Solocore is recommended exclusively for standard or straight (non post-forming) applications.
6. For routine maintenance we recommend using water and nonabrasive mild soaps. Use nonabrasive sponges to avoid surface scratching; avoid long surface exposure to bleach or strong organic detergents that can cause discoloration. For grease stains or difficult to remove dirt wipe the surface with a soft cloth,using a 50:50 mixture of alcohol and organic solvent.
7. Solocore has a long life homogeneous surface with easy maintenance. Stain resistance is high but we do NOT recommend its use for hospitals or chemical laboratories surfaces where chemical oxidizing agents, dyes, alkali and strong acids are used.

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C.I. 12/2015

technical specifications					
* NEMA LD.3/ EN-438 STANDARD METHOD	CHARACTERISTIC	UNITS	s - Grade 50	NEMA LD.3	EN - 438
	Nominal thickness	(In.) mm.	0.039 (1.00)	0.039 (1.00)	-
	Thickness tolerance	(In.) mm.	+/- 0.005 (+/- 0.12)	+/- 0.005 (+/- 0.12)	-
3.1 / 4.0	Appearance (visual defects)	Defects/N	0 A,B,C defects	No A,B,C defects	-
3.3 / 27	Lightfastness	Effect / grey scale	5	SE	4 - 5
	Cleanability level	Max. Score	12	20	-
	Stain resistance				
	Reagents 1-10	Effect	NE	NE	-
	Reagents 11-15	Effect	SE	SE	-
3.4 / 26	Group 1	Grade	5	-	5
	Group 2	Grade	5	-	5
	Group 3	Grade	4	-	4
3.5	Resistance to boiling water	Effect	NE	NE	-
3.6 / 16	Resistance to high temperatures	Effect / Grade	SE	SE	4
3.7 / 25	Scratch resistance	Grade (min.)	32		2
3.8 / 21	Resistance to impact	In (mm) min.	39 (1000)	NA	NA
	Dimensional change				
3.11 / 17	Longitudinal change	Max. %	0.30	0.6	0.45
	Transversal	Max. %	0.50	1.0	0.90
3.13 / 10	Wear resistance	Cycles (min.)	> 3000	400	-
3.14 / 32	Posformability	lm (min.) Radius, min	NA	NA	NA
3.15 / 34	Resistance to blistering	Sec. (min.)	NA	NA	NA

SE=Slight Effect=4, NE=No Effect=5, M=Moderated Effect=3, NA=No Apply, S=Standard, PF=Post-Forming

Bulk density = 1.58 g/cc

\*Nema LD.3 America and EN-438 Europe

## Limited Warranty

CarbonZero warrants that its products are reasonably free of defects and when properly used will comply, with normal deviations, to related manufacturing specifications. This warranty will be extended only to the original buyers for a period of one (1) year from the purchase date. It excludes damage resulting from accidents, abuse or lack of care, improper use and/or any alteration. Since CarbonZero laminates have a wide range of applications, without the possibility of control over the manufacturing of the end product, CarbonZero does not assume obligations or liabilities arising from the furnishing, sale, installation or repair, use or subsequent sale of any product, to any person or entity.

The contents of this brief correspond to common knowledge of high pressure decorative laminates. CarbonZero offers this information solely to provide suggestions for your application. Since it is impossible to anticipate all variations in actual end use conditions, no warranties or liabilities can be assumed by CarbonZero in connection to the use of this information. CarbonZero provides the information and recommendations herein as accurate at the time of preparation or obtained from sources believed to be generally reliable. CarbonZero can modify this document without prior notice.