

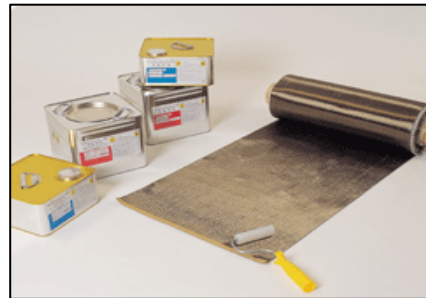
Build Wrap Basalt®

Basalt Fiber Fabric Sheet Data Sheet

Basalt Fiber Reinforced for Fabric Sheet Weight Content with 250g/m² or 300g/m²

**Tensile Modulus 90 Gpa,
Tensile Strength 2500 Mpa**

Strengthening System for Buildings & Bridges Structures or Timber Woods



Build Wrap Basalt, Standard Tensile Strength & Tensile Modulus, Basalt Fiber [Wrap] Roll Size

BASALT FIBER Build Wrap Basalt® is a fabric sheet of longitudinal oriented, continuous basalt fiber filaments which are held in position by a lightweight, open mesh, glass scrim. **Build Wrap Basalt®** has robust handling and rapid wet-out characteristics which make it ideal for on-site strengthening of structural of buildings, bridges, beams, columns and marine structures. Additionally, **Build Wrap Basalt®** is compatible with all commonly used resin systems which can be applied using a variety of wet-out/resin infusion techniques.

Key Properties High Modulus, High Thermal Conductivity, Light Weight, Electrical Conductivity, Excellent Fatigue Resistance, Excellent Corrosion Resistance, Low Friction and Wear, Low Thermal Expansion, Resistance to High Temperatures, Good Creep and Damping Properties, Transparent to X-Rays

“Build Wrap Basalt®” Basalt Fiber Physical Properties

Products Grade	Build Wrap Basalt® 250		Build Wrap® Basalt® 300	
Basalt Fiber Weight	250	g/m ²	300	g/m ²
Glass Scrim Weight	10	g/m ²	15	g/m ²
Total Product Weight	260	g/m ²	315	g/m ²
Roll Width	500	mm	500	mm
Roll Length	100	meter	100	meter
Sheet Thickness	0.091	mm	0.110	mm
Total Roll Weight	13.00	Kg	15.75	kg

Specification Properties Data Sheet

“Build Wrap Basalt®” - Basalt Fiber Properties

Typical of Fiber Properties	SI / Units UK design		US / Units US design	
Tensile Strength	2,500	Mpa	362,500	psi
Tensile Modulus	90	Gpa	12.84 x 10 ⁶	psi
Ultimate Elongation	2.80	%	2.80	%
Density	2.74	g/cm ³	0.0984	Ib/in ³

Build Wrap Basalt[®]

Basalt Fiber Fabric Sheet Data Sheet

IMPORTANT: While the information and data sheet contained in this promotional literature are presented in good faith and believed to be reliable, they do not constitute a part of our terms and conditions of sales unless specifically incorporated in our Order acknowledgement. Nothing herein shall be deemed to constitute a warranty, express or implied, that said information or data sheet are correct or that the products described are merchantable or fit for a particular purpose, or that said information, data sheet or products can be used without infringing patent of third parties.

Application Method

Surfaces Preparation

Reinforced concrete surfaces shall be clean, structurally sound and free from foreign materials, contaminants, oily and other debris. Concrete surfaces shall not more than 4% moisture content and the temperature of the substrate must be at least 3 °C which above, the current dew point temperature.

Reinforced concrete surfaces shall be clean, structurally sound and free from foreign materials, contaminants, oily and other debris. Concrete surfaces shall not more than 4% moisture content and the temperature of the substrate must be at least 3 °C which above, the current dew point temperature.

For filing surface irregularities such as blowholes, honeycombs & etc. Please hacking or cutting – off unloose concrete, air blowing those dust, and clean all concrete surfaces, keep over night for dry.

Using patching method of Polymer Cementitious Mortar or pumping of High Strength Cementitious Grout. But only for concrete surfaces cracks 0.25mm, must be injected with Low Viscosity of Epoxy Resin for filled. Using high pressure Air-Less Pump for injecting and penetration into structural crack lines, to achieve load bearing and adhesion bonding system.

Once patching, pumping or injecting works have been done, before laying Carbon Fiber Fabric Sheet, all surfaces must be Hammer Test for Polymer Cementitious Mortar, High Strength Cementitious Grout and Pull-Off Test for Cracks Lines. For achievement of strength requirement please consult your local Engineer.

Over Head Application

Vertical Application

Applied on Over Head or Vertical Beam and Slab, either Primer, Adhesive & Resin, Waste of materials are approximately 15%.

IMPORTANT

All reinforced structural corners must be rounded to a radius of at least 15mm, before laying the Glass Fiber.

Mixing of Primer

Use a low speed (300 to 500 rpm) electric drill fitted with a paint mixer or a wing type paddle Pour one unit of Part A & B into drum and mix for at least 3 minutes until the mix is uniform and free. Note: Once been mixed, the Primer must be applied within 30 minutes of Pot Life.

For Uneven Surfaces

Mixing of Paste Putty

Use a low speed (300 to 500 rpm) electric drill fitted with a paint mixer or a wing type paddle. Pour one unit of Part A & B into drum and mix for at least 5 minutes until the mix is uniform and free. Note: Once have been mixing, the Paste Putty must be applied within 60 minutes of Pot Life.

Mixing of Resin

Use a low speed (300 to 500 rpm) electric drill fitted with a paint mixer or a wing type paddle. Pour one unit of Part A & B into drum and mix for at least 3 minutes until the mix is uniform and free. Note: Once have been mixed, the Epoxy Resin or Polyurethane Resin must be applied within 60 minutes of Pot Life.

Build Wrap Basalt®

Basalt Fiber Fabric Sheet Data Sheet

Easy Installation

The easy to use Glass Fiber system components assure fast, user friendly installation. A complete system is installed in only six (6) steps to properly prepared surfaces within appropriate working conditions.

System Recommended Use Resin Component

Epo Bond CF is Epoxy Solvent Free (Bisphenol-F)
Two Component of Part A & Part B.
Suitable for applied on Over Head or Vertical or Horizontal Surfaces

1. Roll "Epo Bond Primer"

Apply **Epo Bond Primer**, at rate applied 0.20 kg/m² to 0.30 kg/m², is a low viscosity of **Primer Resin** that can be applied using a roller. (Wait for ½ to 1 hours curing)

2. Level Surfaces with "Epo Bond CF Adhesive"

Apply **Epo Bond CF Adhesive**, at rate applied 1.5 kg/m² to 6.00/m², paste adhesive is a high solids, non sag paste Epoxy Based or Polyurethane Based material that is applied using a squeegee or trowel to level uneven concrete surfaces. (Curing time: ½ hour to 4 hours depend of whether temperature)

3. Apply First Coat of "Epo Bond CF or Epo Bond Paste"

Apply **Epo Bond CF or Epo Bond Paste**, at rate applied 0.25 kg/m² to 1.00 kg/m², is a high solids Epoxy Based or Polyurethane Based Resin, that can be applied using a roller to begin saturation of the fiber reinforcement sheet. (Curing time: ½ hour to 4 hours depend of whether temperature)

4. Apply Glass Fiber fabric Sheet of "Build Wrap Basalt®"

The backbone of the Basalt Fiber composite strengthening system, basalt fiber fabric sheet, is placed into the first layer of wet saturant and backing paper is removed. During the laying of Basalt Fiber Fabric Sheet, Keep the fiber direction properly.

5. Apply Second Coat of "Epo Bond CF or Epo Bond Paste"

Apply **Epo Bond CF or Epo Bond Paste**, at rate applied 0.25 kg/m² to 1.00 kg/m², is a high solids Epoxy Based or Polyurethane Based Resin, that can be applied using a roller to begin saturation of the fiber reinforcement sheet. (Curing time: ½ hour to 4 hours depend of whether temperature)

6. Apply Optional Topcoat

Where required, the Basalt Fiber high solids, high gloss, corrosion-resistant topcoat provides a protective/aesthetic outer layer. (Refer to Painting Manufacture)

Note: *In the case of two layers and several layers of "Build Wrap Basalt" Basalt Fiber Fabric Sheet. For multiple plies repeat steps 3, 4 and 5.*

Remark: *All direction of fiber overlapping must be at least 100mm*



Build Wrap Basalt®

Basalt Fiber Fabric Sheet Data Sheet

LAMACO SYSTEM SDN BHD

Co. No. 1033557-M

407, Jalan Perusahaan 6, Taman Bandar Baru Mergong,
05150 Alor Setar, Kedah. Malaysia

Tel : +60-4-734 5555 Fax : +60-4-772 4444

Http : www.lamaco.com Email : info@lamaco.com



: +60 19 4486611 +60 19 4786611



Epo Bond® CF

Epoxy Resin Properties of Specification (Liquid Based: Solvent Free)

Compressive Strength	DIN 53454	50 N/mm ²
Flexural Strength	DIN 53452	37 N/mm ²
Tensile Strength	DIN 53455	80 N/mm ²
Bonding Strength		Excellent bond to structural
Tension Elongation at Break		6%
Solid Volume		100% High Solid Resin
Viscosity	at 25 °C	4000 (±550) mPa.s
Density	at 25 °C	1.02 g/cu. cm
Pot Life	at 25 °C	> 45 minutes until 60 minutes
Cure Time	at 25 °C	As pot life test method
Specific Gravity		1020 g/liter
Flash Point		> 200 °C
Tear Resistance		Excellent on External & Internal Layer
Abrasion Resistance		10 sec/1000 cycle, 0.01% Peeling of on Top Surfaces
Fire Resistance		Burning Test, Good Conditions of Class 0
Coverage Thickness		0.50 kg to 1.20 kg/m ²
Stability Under Heat	DIN 53458	70 °C
Glass Transition Temp	DIN 53445	90 °C
Shore A Hardness		None
Shore D Hardness	DIN 53505	82-86%
Packing		10 kg/pail


LAMACO SYSTEM SDN BHD

Co. No. 1033557-M

407, Jalan Perusahaan 6, Taman Bandar Baru Mergong,
05150 Alor Setar, Kedah. Malaysia

Tel : +60-4-734 5555 Fax : +60-4-772 4444

Http : www.lamaco.com Email : info@lamaco.com

 : +60 19 4486611 +60 19 4786611



Epo Bond® Paste

Epoxy Resin Properties of Specification (Paste Form: High Viscosity Solvent Free)

Compressive Strength	DIN 53454	50 N/mm ²
Flexural Strength	DIN 53452	37 N/mm ²
Tensile Strength	DIN 53455	80 N/mm ²
Bonding Strength		Excellent bond to structural
Tension Elongation at Break		6%
Solid Volume		100% High Solid Resin
Viscosity at 25 °C		25000 (±550) mPa.s
Density at 25 °C		0.97 g/cu. cm
Pot Life at 25 °C		> 45 minutes until 60 minutes
Cure Time at 25 °C		As pot life test method
Specific Gravity		970 g/liter
Flash Point		> 200 °C
Tear Resistance		Excellent on External & Internal Layer
Abrasion Resistance		10 sec/1000 cycle, 0.01% Peeling of on Top Surfaces
Fire Resistance		Burning Test, Good Conditions of Class 0
Toxicity		Essentially non-toxic in cured fabricated panel
Coverage Thickness		0.75 kg to 2.00 kg/m ²
Stability Under Heat	DIN 53458	70 °C
Glass Transition Temp	DIN 53445	90 °C
Shore A Hardness		None
Shore D Hardness	DIN 53505	82-86%
Packing		5 kg/pail (Part A/2.95 kg & Part B/2.05 kg)


LAMACO SYSTEM SDN BHD

Co. No. 1033557-M

407, Jalan Perusahaan 6, Taman Bandar Baru Mergong,
05150 Alor Setar, Kedah. Malaysia

Tel : +60-4-734 5555 Fax : +60-4-772 4444

Http : www.lamaco.com Email : info@lamaco.com

 : +60 19 4486611 +60 19 4786611



Epo Bond® Primer

Properties of Specification

	Test Result	Cured Coating
Compressive Strength	DIN 53454	48 N/mm ²
Flexural Strength	DIN 53452	36 N/mm ²
Tensile Strength	DIN 53455	72 N/mm ²
Bonding Strength		Excellent bond to structural
Tension Elongation at Break		2%
Solid Volume		100% High Solid Resin
Viscosity at 25 °C		3500 (±250) mPa.s
Density at 25 °C		1.02 g/cu. cm
Pot Life at 25 °C		> 25 minutes until 60 minutes
Cure Time at 25 °C		Dust-dry Time: 1.5 hours Full Cured: 4 hours
Specific Gravity		1020 g/liter
Flash Point		> 200 °C
Tear Resistance		Excellent on External & Internal Layer
Abrasion Resistance		10 sec/1000 cycle, 0.01% Peeling of on Top Surfaces
Fire Resistance		Burning Test, Good Conditions of Class 0
Coverage Thickness		0.15 kg to 0.50 kg/m ²
Stability Under Heat	DIN 53458	70 °C
Glass Transition Temp	DIN 53445	90 °C
Shore A Hardness		None
Shore D Hardness	DIN 53505	75%
Packing		5.00 kg/pail

Important 1: While the information and data sheet contained in this promotional literature are presented in good faith and believed to be reliable, they do not constitute a part of our terms and conditions of sales unless specifically incorporated in our Order acknowledgement. Nothing herein shall be deemed to constitute a warranty, express or implied, that said information or data sheet are correct or that the products described are merchantable or fit for a particular purpose, or that said information, data sheet or products can be used without infringing patent of third parties.

Important 2: LAMACO Malaysia products are not guaranteed against defective materials and manufacture & are sold subject to its standard Terms & Conditions of sale, copies of which may be obtained on request. Whilst LAMACO Malaysia endeavors to ensure that any advice, recommendation, specification or information is accurate and correct, it cannot- because it has no direct or continuous control over where or how its products are applied – accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance any advice, specification, recommendation or information given by it.

Health & Safety Some of the components of this product may be hazardous during mixing and application. Please consult the relevant Health & Safety Data Sheets, available from LAMACO Malaysia on request and sent with each delivery.



Build Wrap Basalt®

Basalt Fiber Fabric Sheet Data Sheet

LAMACO SYSTEM SDN BHD

Co. No. 1033557-M

407, Jalan Perusahaan 6, Taman Bandar Baru Mergong,
05150 Alor Setar, Kedah. Malaysia

Tel : +60-4-734 5555 Fax : +60-4-772 4444

Http : www.lamaco.com Email : info@lamaco.com



: +60 19 4486611 +60 19 4786611

