

PRODUCT DATA SHEET

Sika® CarboDur®-300 Grid

BI-DIRECTIONAL CARBON FIBER GRID FOR STRUCTURAL STRENGTHENING

PRODUCT DESCRIPTION

Sika® CarboDur®-300 Grid is a high strength, bi-directional carbon fiber grid. The material is field installed using SikaCem® -226 CI to create a FRCM system.

USES

Sika® CarboDur®-300 Grid may only be used by experienced professionals.

Embedded as reinforcement into SikaCem® -226 CI high strength mortar and used for:

Load Increases

- Increased live loads
- Installation of heavy machinery in industrial buildings
- Elevator shafts
- Changes of building utilization

Damage to Structural Parts

- Aging of structures
- Vehicle impact
- Fire

Corrections to Design or Construction Defects

- Insufficient reinforcements
- Insufficient concrete strength

CHARACTERISTICS / ADVANTAGES

- Suitable for damp substrate and harsh environments
- No UV protection required
- Minimal surface preparation needed
- Matches concrete substrate/little aesthetic impact
- Less temperature limitations
- No water vapor barrier
- Non-hazardous
- Compatible with most coatings

- Excellent for use in masonry strengthening since no surface prep is required
- Provides protective barrier
- Effective reinforcement in two directions
- Fabric has excellent geometric stability, making it easy for contractors to use
- The patented fabric is designed to optimize the use of the carbon strength
- Corrosion resistant

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November 2020, Version 01.01

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PRODUCT INFORMATION

Construction	Fibre orientation	<u>0° / 90°</u>
	Black fibre grid with patented coating 13 filaments. Grid spacing: 4in x 4in (centre to centre) in both directions	
Fiber Type	Carbon fibre	
Packaging	Roll width	<u>40 in (1 m)</u>
	Roll length	<u>164 ft (50 m)</u>
Shelf Life	24 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between 50°F (+10 °C) and 86°F (+30 °C). Always refer to packaging	
Area Density	9.4 oz/yd ² (320 g/m ²)	
Dry fibre modulus of elasticity in tension	~33.3 ksi (230 GPa)	
Dry fibre elongation at break	~1.9 %	

TECHNICAL INFORMATION

SYSTEM INFORMATION

System Structure	<ul style="list-style-type: none">▪ Sika® CarboDur®-300 Grid▪ SikaCem® -226 CI
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BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

For more information on installation of the Sika® CarboDur® Grid System, refer to the product Method Statement and SikaCem® -226 CI PDS

SUBSTRATE PREPARATION

Surface must be clean and sound. Remove dust, laitance, grease, curing compounds, impregnations,

waxes, foreign particles, disintegrated materials and other bond inhibiting materials from the surface. Refer to the Sika Method Statement: Sika® CarboDur® Grid System and SikaCem® -226 CI Product Data Sheet

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

1. Apply the first layer of SikaCem® -226 CI mortar to the prepared and damped substrate.
2. Embed Sika® CarboDur®-300 Grid into the 1st wet layer of mortar.
3. While the first layer is still wet, apply a 2nd layer of mortar to completely cover the Sika® CarboDur®-300 Grid.
4. Finish the surface of the 2nd layer of mortar according to project requirements using stainless steel or plastic float.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED

- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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Sika Corporation
 201 Polito Avenue
 Lyndhurst, NJ 07071
 Phone: +1-800-933-7452
 Fax: +1-201-933-6225
usa.sika.com

Sika Mexicana S.A. de C.V.
 Carretera Libre Celaya Km. 8.5
 Fracc. Industrial Balvanera
 Corregidora, Queretaro
 C.P. 76920
 Phone: 52 442 2385800
 Fax: 52 442 2250537



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