

GlobalDur GN120 Epoxy Resin



TECHNICAL DATA SHEET



Epoxy Resin Solvent Free for Concrete

PRODUCT DESCRIPTION	<ul style="list-style-type: none"> ◆ GlobalDur GN120ER is an excellent epoxy primer solvent free for Concrete. ◆ GlobalDur GN120ER is specially design to have excellent chemical resistance, mechanical and aesthetic properties. 		
PERFORMANCES	<ul style="list-style-type: none"> • Excellent adhesion to concrete. • Excellent mechanical properties on mortars and glass reinforced fiber glass. • No harmful solvents- Solvent free. • Excellent wet ability to the substrates. • High mechanical properties. 		
RECOMMENDED USE	<p>PRIMER/INTERMEDIATE/FINISH OVER CONCRETE MARINE: Decks, Chain lockers, Tower bridge, etc. PROTECTIVE: Fiber glass reinforced laminates. Suitable for direct application on exterior and interior water pipes lines. Sewer lines. Dams and Concrete locks, primer on concrete water tanks, Fuel or Grains storage tanks. Flooring primer and epoxy mortar. Tunnels, etc..</p>		
APPROVALS			
COMPONENT A	COMPONENT B	COLOURS	
GN120ER	H120ER	Clear.	

Physical Properties

GLOSS	Glossy.
SOLIDS BY VOLUME	100 % (theoretical)
VOC*	Max. 40g/L.
FLASH POINT	> 100°C (> 221°F) Setaflash
PHYSICAL PROPERTIES	<p>Density: 1,1 g/cm³ Adhesion: >1.5 N/mm² (cohesive rupture on concrete) (ISO4624) Hardness Shore D: ~75 (7d/23°C) (DIN53505) Abrasion Resistance: 70 mg (7d/23°C) (CS10/1000/1000; ISO7784-2) Coating System Properties (GN120ER/GN132EFSL/GN205PF) Adhesion - Pull Off (ASTM D4541) Dry surface: >50 Kg/cm² (MPa) (710 psi) (or >1,5 Kg/cm² (MPa) cohesive on the concrete) Adhesion- Tape test (ASTM D3359) Rate - 5B (between finish coat GN2##PF and GN132EFSL) Abrasion Strength (ISO7784-2) 24 mg (1000 cycles / 1000 g / CS10) Barcol Resistance(ASTM D2583) 30 Maximum Elongation (ISO/R 527) 2% Elasticity Modulus (ISO/R 527) 100,000 KgF/cm² Compressive Strength (ISO 844) 1.050 KgF/cm² (15,000 psi)</p>

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Flexural Strength (ISO 178) 650 KgF/cm2 (9245 psi.)
 Impact Resistance (EN ISO 6272) IR4
 Deformation/Impact test (ASTM D2794) 1.22 Kgf.m (12,0 Joules)
 Exterior Exposure (ASTM D1014) 2 years- (Chalking) (ASTM D659): Rate 1
 QUV (Using A340 & B313 bulbs) 2000 hours – (Chalking) (ASTM D659): Rate 1
 Absorption (ASTM D570) 0,1%
 Fire Reaction (EN 13501-1) Bfl-s1

Application

SURFACE PREPARATION	<p>Painting Direct to Substrate: GlobalDur GN120ER is suitable for concrete surfaces prepared accordingly with NACE N°6/SSPC-SP13 using: Mechanical Surface Preparation Methods. Chemical Surface Preparation Flame Cleaning and Blasting</p> <p>Over coated surfaces be sure of the old coating conditions (no coating defects and corrosion- in "sound conditions") and the compatibility with the GlobalDur GN120ER. Please contact GlobalNavy office in case of any doubt or for further information.</p>
APPLICATION METHOD	<p>CONVENTIONAL METHODS: Due to the short pot-life of the product, brush and roller are suitable. Care should be taken in order to achieve the dft specified. When applying on enclosed areas ensure a good ventilation.</p>
APPLICATION CONDITIONS	<p>The substrate temperature shall be 10°-+50°C. The ambient temperature shall be >10°C . The concrete moisture should be lower than 4%. Surface temperature must always be a minimum of 3°C (5°F) above dew point.</p>
APPLICATION DATA	<p>GlobalDur GN120ER Epoxy Resin is a two pack product, so the base and hardener must be mixed on the right ratio. First, mix well component A during 1 minutes. After that, add all the hardener and stir very well until it get homogeneous. Mix completely both quantities of component A and B packs.</p>
MIX RATIO	2,2 / 1 (by Weight) 2 / 1 (by Volume)
HARDENER	H120ER
POT LIFE	45 minutes (23°C/73°F).
THINNER	GN008TH
SOLVENT / CLEANER	GN008TH / GN003TH
DRY TIME	<p>Surface dry: 4 hours at 23°C (73°F). Dry to recoat: Min: 12 hours at 23°C (73°F). Max: 7 days at 23°C (73°F).</p>
THEORETICAL COVERAGE	GN10ER: as primer for concrete 0 .22 Kg/sqm for 200 (8 mils) microns thickness.
TYPICAL PAINT SYSTEM	<ul style="list-style-type: none"> • GlobalDur GN120ER 1 x 0,15 Kg (dft) + GlobalDur GN132EFSL 1 x 0,40 Kg (dft). This is a system for flooring conditions. Please contact GlobalNavy for other applications.
STORAGE	4 years (storage on the original tightly closed containers in a dry, cool, well ventilated space, at temperatures between 5°C - 30°C).
PACKING	Two pack product, available in packs (A+B) 8 Kg and 21 Kg.

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FURTHER INFORMATION

The conventional air spray is only possible with well organize painting system, due to the short pot-life - Please contact our GlobalNavy office.

HEALTH SAFETY

Please take the necessary measures in order to accomplish the national laws and regulations regarding the environmental, health and safety at work. Please observe the safety information displayed on the container. Please refer to the Safety Data Sheet for detailed information on the health, safety hazards and precautions for the use of this product.

The information on this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. This is not a specification and all information is given in good faith. Every values presented as Theoretical were calculated from the product formula, so can have deviation from laboratory measurements using standard methods that may be not applicable. However, since the product can be used under conditions beyond our control, the manner of use is the sole responsibility of the user. The product is intended for professional use only. Manufacturer does not assume any liability in connection with the use of the product relative to coverage, performance or injury. This Technical Data Sheet content can be changed without notice.

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