

# GlobalThane GN221 Urethane Coating



## TECHNICAL DATA SHEET



### Polymer of Polyurea Cold Application High Elasticity and Chemical Resistance

<b>PRODUCT DESCRIPTION</b>	◆ GlobalThane GN221UC/GN221UCPS is an excellent Polyurea coating 100%solids that reacts with H221UC/H221UCPS and humidity forming a finish coat with high elasticity and chemical resistance. ◆ GlobalThane GN221UCPluraSpray is a special version to be apply with airless plural equipment at ambient temperatures higher than 21 <sup>a</sup> C fastest dry/curing properties.	
<b>PERFORMANCES</b>	<ul style="list-style-type: none"><li>• Excellent sealer even with humidity on the surface;</li><li>• Excellent chemical resistance to solvents;</li><li>• Fast curing;</li><li>• Solvnet free;</li><li>• Excellent flexibility;</li></ul>	
<b>RECOMMENDED USE</b>	WATERPROOFING OVER STEEL MARINE: Cabins, bathrooms, kitchens, etc.. FINISH OVER CONCRETE PROTECTIVE: Infrastructures, waste water tanks, water parks, etc.. FLOORING: Balcony, terrace, exterior and interior car parking, etc.. WATERPROOFING OVER OTHER SUBSTRATES Recommended for application on Aluminium, Wood and Fiberglas, when properly primed.	
<b>APPROVALS</b>	Complies with EU Directive 2010/42/EC: subcategory j (VOC< 500 g/l).	
<b>COMPONENT A</b>	<b>COMPONENT B</b>	<b>COLOURS</b>
GN221UC / GN221UCPS	H221UC / H221UCPS	GN221UCG9003 (White), GN221UC9005 (Black)/GN221UCPSG7000 (Light Grey). For other colours, like RAL colours, please contact GlobalNavy's office.

### Physical Properties

<b>GLOSS</b>	Glossy
<b>SOLIDS BY VOLUME</b>	100% (theoretical).
<b>VOC*</b>	< 5 g/L.
<b>FLASH POINT</b>	> 100°C (> 212°F) Setaflash.
<b>PHYSICAL PROPERTIES</b>	Density: 1,2 g/cm <sup>3</sup>

### Application

<b>SURFACE PREPARATION</b>	All the surfaces have to be clean and without contamination. The surface should be evaluated and treated accordingly with ISO8504.
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Coated Surface: Clean, undamaged and dry compatible primer. Contact GlobalNavy office for more information.  
 Other Surfaces: Check the suitability of GN221UC, apply a suitable primer following its Technical Data Sheet and then apply the GN221UC. Contact GlobalNavy office for further information.

<b>APPLICATION METHOD</b>	GlobalThane GN221UC can be applied by squeegee, roller, brush. GN221UCPS should apply only with air-less plural equipment. Cracks should be clean and grinded before application of the primer. In order to increase adhesion to the primer coat, inerts should be spread over the primer before curing and sweep of before GN221UC application. For further information see "GN221UC Application Bulletin".
<b>APPLICATION CONDITIONS</b>	The substrate temperature should be minimum 10°C (32°F) and at least 4°C (7°F) above the dew point of the air, measured in the vicinity of the surface. The moisture should be < 85%. Assure a good ventilation with dry air in confined areas.
<b>APPLICATION DATA</b>	GlobalThane GN221UC Urethane Coating is a two pack product "cold" Polyurea, so the base and hardener must be mixed on the right ratio. Start mixing well component A and without stoping all the hardener and stir very well until it get homogeneous. If necessary, for an application optimization adjustment, the product can be diluted until 10 % (v/v) with GN007TH. Mix completely both quantities of component A and B packs. Low temperature cause higher pot life, and higher temperatures decrease mixture pot life. For GN221UCPS each component should be mix separetly and put on each suction hose.
<b>MIX RATIO</b>	1,8 / 1 (by weight) 3 / 1 ( by volume)
<b>HARDENER</b>	H221UC / H221UCPS
<b>POT LIFE</b>	GN221UC- 1 hour. GN221UCPS- -.
<b>THINNER</b>	GN221UC-GN071TH (3% Max.). GN221UCPS- Not recomended.
<b>SOLVENT / CLEANER</b>	GN077TH/GN071TH.
<b>DRY TIME</b>	GN221UC/H221UC: Surface dry: approx. 2 hours at 23°C (73°F) and 50% relative humidity. Overcoating: Depends on temperature and humidity, but normally 6 hours at 23°C (73°F). GN221UCPS/H221UCPS: Surface dry: approx. 20 seconds at 23°C (73°F) and 50% relative humidity. Overcoating: Depends on temperature and humidity, but normally 1 hour at 23°C (73°F).
<b>THEORETICAL COVERAGE</b>	GN221UC: 2 m2/Kg - 0,5 Kg WFT (400 µm WFT).
<b>TYPICAL PAINT SYSTEM</b>	• GlobalThane GN120ER 1 x 0,3 Kg • Global GN221UC 1 x 0.5Kg • Global GN204PF 1 x 50 µm. This is a typical system for non immersion conditions. Please contact GlobalNavy for other applications.
<b>STORAGE</b>	1 year (storage on the original tightly closed containers in a dry, cool, well ventilated space, at temperatures between 5°C - 30°C).
<b>PACKING</b>	Two pack product, available in packs (A+B) 5 Kg and 20Kg.
<b>FURTHER INFORMATION</b>	Need humidity in order to cure completely. If exact colour matching is required, ensure that GN221UC in each area is applied from the same control batch numbers.

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## 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.

Parque Industrial de Carrascas, Estrada Nacional 252, 2950-402 Palmela PORTUGAL

◆ Tel.:+351 265107979 ◆ [www.globalnavy.net](http://www.globalnavy.net) ◆ email: [sales@globalnavy.net](mailto:sales@globalnavy.net)

<b>GlobalFloor Waterproofing</b>	GN120ER/GN221UC/GN2##PF	<b>- Additional Information</b>
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<b>CURING TIME TABLE</b>
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GN120ER		5°C	10°C	15°C	20°C	25°C	30°C
Pot Life			120 minutes	90 minutes	50 minutes	40 minutes	20 minutes
Dry to touch (Max.)			18 h	10 h	6 h	4 h	3 h
Foot traffic			32 h	24 h	16 h	12 h	8 h
Recoating period	Min.		32 h	24 h	16 h	12 h	8 h
	Max.		10 days	7 days	7 days	6 days	5 days
GN221UC			10°C	15°C	20°C	25°C	30°C
Pot Life			90 minutos	60 minutos	40 minutos	30 minutos	20 minutos
Dry to touch (Max.)			8 h	4 h	2 h	2 h	90 minutes
Foot traffic			32 h	24 h	18 h	14 h	14 h
Recoating period	Min.		24 h	12 h	8 h	6 h	5 h
	Max.		10 days	7 days	7 days	6 days	5 days
GN205PF#				15°C	20°C	25°C	30°C
Pot Life				8 h	6 h	3 h	2 h
Dry to touch (Max.)				10 h	6 h	4 h	3 h
Foot traffic				48 h	24 h	16 h	12 h
Recoating period	Min.			24 h	20 h	16 h	12 h
	Max.			6 dias	4 dias	4 dias	3 dias

<b>PHYSICAL PROPERTIES - COATING SYSTEM ON CONCRETE</b>
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SEQ	Characteristic	Unit	Profile requirements	Globalnavy product properties
<b>I</b>	<b>GlobalDur GN120ER Epoxy primer for concrete and cement mortar.</b>			
1	Adhesion Strength of film on concrete M30 (ASTM D4541)	MPa	≥ 2,0	≥ 2,0
<b>II</b>	<b>GlobalThane GN221UC Cold Polyurea intermediate waterproofing</b>			
1	Tensile strength (ASTM D412)	psi	2500±200	3000
2	Elongation to breaked point (ASTM D412)	%	350±50	400
3	Tearing intensity	N/mm	75±5	80

4	Impact resistance (DFT 1mm)	Kg.m	>1,5	>1,5
5	Adhesion to concrete substrate (ASTM D4541)	N/mm <sup>2</sup>	≥ 2,00	≥ 2,00
6	Chemical resistance (ASTM D3912)		No destruction	No destruction
7	Environmental toxicity		No	No
<b>III</b>	<b>GlobalThane GN205PF Polyurethane UV and High Abrasion resistance</b>			
1	Salt fog durability (ASTM B117)	h	> 1000 h	> 1000 h
2	Working temperature	°C	0°C to 100 °C	0°C to 120 °C
3	Abrasive resistance (ASTM D1242)	mg	< 60mg	50
4	Adhesion to concrete substrate (30Mpa) ASTM D4541	MPa	≥ 2,0	≥ 2,0
5	Chemical resistance (ASTM D3912)		No destruction	No destruction
6	UV resistance (ASTM G53)		≥ 3000 h	≥ 3000 h
7	Film life	year	≥ 7	10