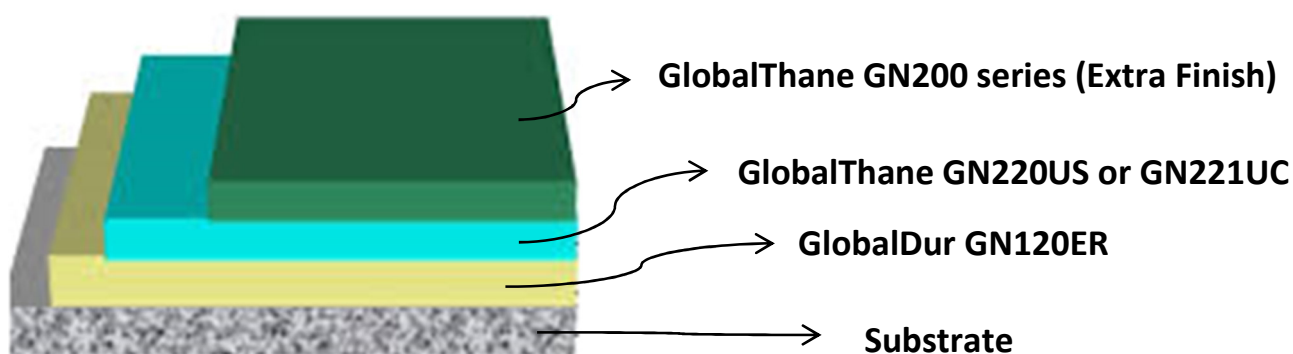


## Application Bulletin

**GlobalThane  
GN220US  
GN221UC**





# GlobalThane GN220US/GN221UC

1. Composition & Packing	
2. Products	
3. Equipments & Application Conditions	
4. Inspection & Surface Preparation	
5. Application - Adhesion Layer	
6. Application - Water Proofing Layers	
7. Disposal of Waste Materials	
8. Technical Services	
9. Health & Safety Precautions	
10. Important Informations	
11. Other Details	



# GlobalThane GN220US/GN221UC

## General Information

The waterproofing GlobalThane GN220US/GN221UC is based on its urethane technology based on a reaction of isocyanates with amines and environmental humidity originating on a so call “cold polyurea” coating, when applied over an epoxy primer in order to give the maximum adhesion to concrete, originates an high performance waterproofing coating system.

## 1. Composition & Packing

- One unit of **GlobalThane GN220US** consists of: **5 / 20 Kg**
- One unit of **GlobalThane GN221UC** consists of: **5 / 20 Kg pack**
- Component **A** (Resin): 3,3 / 13,0 Kg can
  - Component **B** (Pigmented hardner): 1,7 / 7,0 Kg can

## 2. Products for a Waterproofing Flooring System

- **2.1.1 Adhesion Layer (dry concrete conditions):**  
GlobalDur GN120ER epoxy primer (dry concrete), with a consumption of + - 300 gr/m2.
- **2.1.2 Adhesion Layer (*Alternative- wet or green concrete conditions*):**  
GlobalDur GN114EP epoxy primer (green concrete), with a consumption of + - 300 gr/m2.
- **2.1.3 Adhesion Layer (*Alternative- ceramic tiles or hard concrete conditions*):**  
GlobalDur GN112EP epoxy primer for glass and hard concrete, with a consumption of + - 100 gr/m2.
- **2.2 Wearing Layer:**  
GlobalThane GN220US or GN221UC, with a consumption of + 0,5 kg/m2.
- **2.3 Top Coat (if extra abrasion and aesthetic is required):**  
GlobalDur GN200 series polyurethane coat or varnish finish with a consumption of + - 90 gr/m2.



# GlobalThane GN220US/GN221UC

## 3. Equipments & Application Conditions

### •3.1 Equipment & Tools

Shot blast, Diamond polishing plates, Milling machine, Abrasive disc plates, Industrial vacuum cleaner, Industrial mixer, Electrical cables and connecting devices, Spreader, Spike shoes, Spike roller, Brushes, Paint rollers, Plastic gloves, Knee protectors, etc.

### •3.2 Application Conditions

The substrate MUST BE as flat as possible

- |                        |   |   |
|------------------------|---|---|
| •Air Temperature       | : | $\geq 10^{\circ}\text{C}$ and $\leq 35$                 |
| •°C                    | : |   |
| •Surface Temperature   | : | $\geq 10^{\circ}\text{C}$ and $\leq 40^{\circ}\text{C}$ |
| •Surface Humidity      | : | $< 6\%$   |
| •Relative Humidity Air | : | $< 80\%$  |
| •Surface Conditions    | : | Mechanically prepared and free of contaminants          |
| •Concrete              | : | Compressive strength $\geq 25 \text{ N/mm}$             |
| •Screed                | : | Compressive strength $\geq 30 \text{ N/mm}$             |



# GlobalThane GN220US/GN221UC

## • 4. Inspection & Surface Preparation

- **THE SUBSTRATE MUST BE DRY AND MUST HAVE A MINIMUM AGE OF 28 DAYS !!!**
- **In case you need to anticipate the entry into work or on wet conditions, you may use our primer *GlobalDur GN114EP***
- **4.1 Inspection**
- A good quality and conditions of the preparation is primordial for the successful application of the ***GlobalThane GN220US or GN221UC***. The cleaning/vacuum cleaner should be delayed until shortly before the application of the product, to avoid the risk of fresh contamination or dirt.
- **4.2 Crack inspection and treatment**
- A good evaluation of the crack size and density should be made. In this way, two kind of procedures should be done:
  - i) a few cracks on the floor: scrap and if necessary grind it in order to have a better vacuum cleaner and a better penetration of the primer.
  - ii) many random cracks: consider on applying a net woven on all surface on the first coat of GN221UC, after the primer application.
- **4.2 Surface Preparation-**
- **4.2.1. Dry or wet concrete conditions**
  - ***Diamond polishing plates*** - Suitable to eliminate damaged coatings or increase the porosity of media polished concrete, leaving the surface prepared for coating application of low film thickness.
  - ***Shot blast*** - Suitable for removing scum layer surface by projection of small steel balls (shot) which impinge on the concrete surface, increasing its porosity, leaving the area prepared for coatings application.
  - ***Obs.:*** In old concretes, ***NEVER*** use solvents to degrease. They tend to push oil into the concrete. When there are serious contaminations, Acetylene flame cleaning followed by mechanical treatment is required.
- **4.2.2. Ceramic tiles or hard concrete conditions**
  - ***Degrease with a suitable thinner-*** care should be taken in order to leave a cleaning surface. It is advisable to run a diamond polishing plate machine in order to level better the tiles in order to decrease product consumption and have a better surface preparation.
- **4.3 Vacuum Cleaner**





# GlobalThane GN220US/GN221UC

## 6.2 Water proofing - Application of GN221UC

### • 6.1 Mixing of GlobalThane GN221UC

Is a two pack product , so components must be mixed on the right ratio by a mechanical mixer. Component "B" should be well mixed during 1 min.. After add component "B" to component "A" and stir very well until it get a homogeneous.

### • 6.2 Application of GlobalThane GN221UC

The *GlobalThane GN221UC* is pourable and should be spread out with an appropriate tools, such as large trowel, over the cured primer *GlobalDur GN120ER /GN114EP /GN112EP*. Treat the product with spike roller few minutes after application to remove all the entrapped air. Consumption for a 500 gr/m<sup>2</sup>.

### • 6.3 Pot life

Pot life ( $\geq 10^{\circ}\text{C}$ and $\leq 20^{\circ}\text{C}$ )	:	+ - 120 minutes
Pot life ( $\geq 21^{\circ}\text{C}$ and $\leq 30^{\circ}\text{C}$ )	:	+ - 60 minutes

### • Remarks:

- Do not apply higher thickness than 1,0 Kg/m<sup>2</sup> in order than bubbles may stay trapped on the coating film.
- If a polyurethane coat or varnish coat is required, apply one layer of *GlobalThane 200 series* with a consumption of + - 90 gr/m<sup>2</sup>.
- In case an aesthetic finish is required, sprinkle chips in the non cured second coat *GlobalThane GN220US or GN221UC* and after apply one layer of *GlobalThane GN207PV, GlobalThane GN208PV or GlobalThane GN210PV*, with a consumption of + - 90 gr/m<sup>2</sup> in order to protect the surface.

## 7. Disposal of Waste Materials

- Accordingly to the local regulations

## 8. Technical Services

### • Globalnavy Tintas e Revestimentos, Lda.

Parque Industrial de Carrascas  
Estrada Nacional 252 - Apartado 5  
2950-402 Palmela - Portugal  
Telephone: + 351 265 107 979  
email: [sales@globalnavy.net](mailto:sales@globalnavy.net)



## 9. Health & Safety Precautions

- See our MSDS-sheets

## 10. Important Informations

### • 10.1 Cleaning

This must happen frequently to avoid build up of dirt on the GlobalDur GN136SL surface. Alkaline detergents can be used. If doubt, contact Globalnavy, Lda.

### • 10.2 Control

Control of colour, curing properties, viscosity (only component "B").

### • 10.3 Storage Conditions

Product should be stored in dry places away of humidity and frost at minimum temperature of 5°C and 30°C maximum. Shelf life of the product is 24 months.







# GlobalThane GN220US/GN221UC



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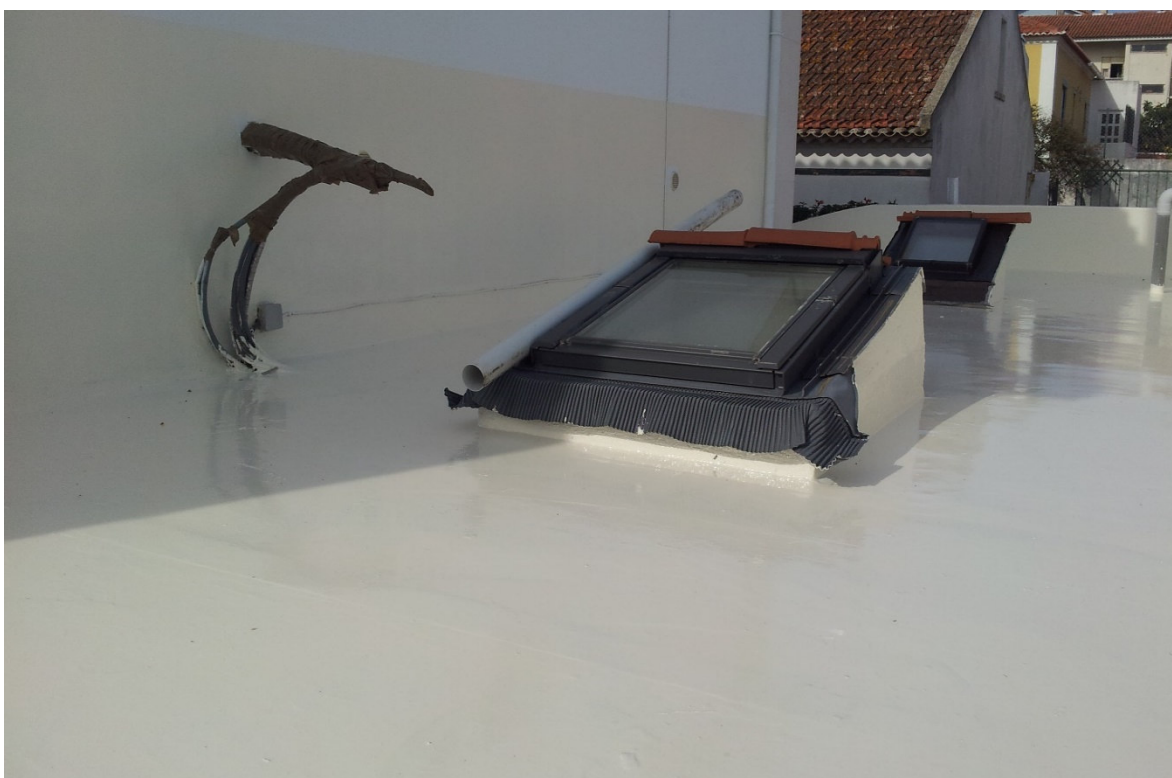
Parque Industrial de Carrascas - Estrada Nacional 252 - 2950-402 Palmela - Portugal

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# GlobalThane GN220US/GN221UC



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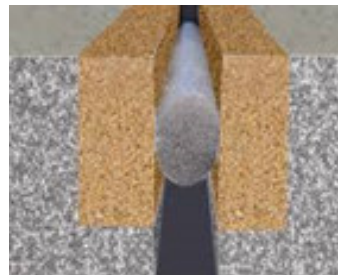
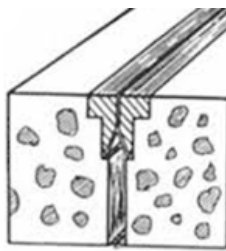
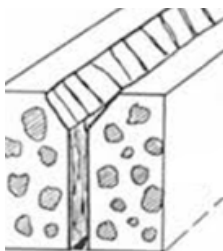
**Warning:** For this kind of products there are a general pressure to execute the projects on the wrong time, due to find out when it starts raining that they have an old problem of waterproofing. It is important not to give in to the demands of the client and have a coating failure and a problem after. Because at that time it means that the slab is with high humidity and even so might appear on the surface that it is dry, the water inside is so much that the probability of its vapor pressure cause blister and coating adhesion failure on the cement slab or on the coating system is high. So the correct attitude is make this projects on dry seasons.

The information and recommendations herein are believed by the company to be accurate and reliable. It is the buyer's responsibility to determine whether the company's products are appropriate for the buyer's intended use. As the substrate and working conditions differ from project to project, it is buyer's responsibility to decide if the consumption of the products and the working conditions are appropriate for the selected system.

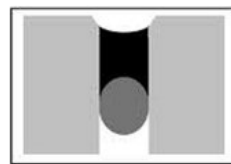
## 11.

## Other Details

### Treatment Seals

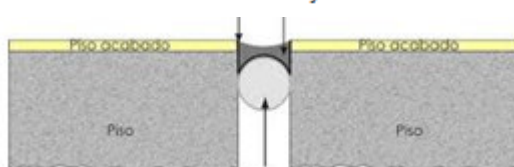


Epoxy mortar  
Argamassa epoxi  
Mortier époxy

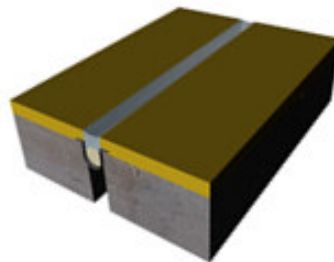


Adhesion promoter  
Promotor de adesão  
Promoteur d'adhérence

Polyurethane mastic  
Mastique de poliuretano  
Polyuréthane de mastic



Cord polietileno  
Cordão de polietileno  
Cordon polietileno





# GlobalThane GN220US/GN221UC

## Slope, Classification and Grit

Slope Angle Ângulo Inclinação Angle D'inclinaison	Slip Resistance Classification Classificação Antiderrapante Glissez Classement De Résistance	Grain size Granulometria Silicas Granulométrie Des silices
≥ 10° ≤ 19°	R 10	0,1 - 0,3 mm
> 19° ≤ 27°	R 11	0,4 – 0,7 mm
> 27° ≤ 35°	R 12	0,4 – 0,7 mm
> 35°	R 13	0,7 – 1,2 mm

## Application Areas - Anti Slip Classification

Application Areas Áreas Aplicação Domaines D'application	Anti Slip Classification Classificação Antiderrapante Anti Slip Classement	Application Areas Áreas Aplicação Domaines D'application	Anti Slip Classification Classificação Antiderrapante Anti Slip Classement
Slaughterers Matadouros Abattoirs	R 13	Industrial kitchens Cozinhas industriais Cuisines industrielles	R 12
Meat processing Processamento carnes Transformation de la viande	R 13	Milk processing Processamento de leite La transformation du lait	R 12
Fish processing Processamento pescado La transformation du poisson	R 13	Cooling chambers Câmaras de refrigeração Chambres froides	R 12
Refining oil food Refinação de óleo alimentar Raffinage pétrole contre nourriture	R 13	Auto workshops (Oil zones) Oficinas auto (Zonas óleo) Ateliers auto (Zones pétrole)	R 12
Workshops leather Oficinas de couro Ateliers cuir	R 13	Remaining areas Workshop Restantes áreas oficina Zones restantes atelier	R 11
Cheese factories (Production & Storage) Queijarias (Produção e Armazenamento) Laiteries (Production et stockage)	R 11	Rooms sterilization Salas de esterilização Chambres stérilisation	R 10
Bottling plants Fábricas de engarrafamento Les usines d'embouteillage	R 11		
Liquor warehouses Armazéns de bebidas Magasins d'alcools	R 11		
Laundry rooms Lavandarias Buanderies	R 11		
Aircraft hangars Hangares de aviões Hangars d'avions	R 11		

## Consumption of Epoxy Resin Sealing Systems

As Non slip Classification		
R 13	R 12	R 11
1 x 0,8 Kg/m2	1 x 0,6 Kg/m2	1 x 0,7 Kg/m2

## Film thickness Systems

As Nonslip Classification
---------------------------

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# GlobalThane GN220US/GN221UC

R 13	R 12	R 11
3 a 4 mm	3 a 4 mm	≤ 4 mm

## Cleaning and maintenance of floors of synthetic resins

To obtain a floor with the best performance and satisfaction for as long as possible, cleaning and maintenance of it is of utmost importance.

After application and complete curing of the coating, it should be cleaned by professionals with appropriate products and equipment.

### Initial cleaning

- Cleaning the entire area where the coating removing dust, loose particles and impurities has been applied.
- Inspect the floor paying particular attention to areas that may require special treatment, such as oil stains, shoe brands, chairs or tires. In these cases we recommend using the Forward Jontec product, according to the indications of the plan with the product datasheet.
- If the dirt is not removed Jontec Forward will have to use a product with a greater cleaning power, so we suggest that you contact the manufacturer JohnsonDiversey for recommending the appropriate product depending on the dirt and cleaning method.

### Protection

At homes, offices, showrooms, etc, it is advisable to apply an acrylic wax continued to confer extra wear protection of the floor decks. The wax will act as a sacrificial layer supporting much of the aggression. The wax will be applied in regard to the desired final appearance, high brightness "Jontec Eternum" semi-gloss "Jontec Luna" or matt "Jontec Matt".

### Daily maintenance

The maintenance plan is defined according to the type of dirt on the floor. As a rule, neutral products (Jontec Tensol , Jontec Best, Jontec 300 ) for daily maintenance of any deck is used, with the exception of situations where there is a large load of everyday dirt that can not be removed with neutral and there will have to adopting the use of an alkaline ( or Jontec Forward, Jontec Actival ) for daily maintenance.

The methods to be adopted for the daily maintenance of a continuous floor waxed , always depend on the size of the area to maintain the type of soiling and type of the client, although the ideal for most situations method is the use of an Auto - Washer of TASKI SWINGO line. The choice of model will have to be done depending on the area to be cleaned.

Floors protected with acrylic waxes may only be cleaned with neutral product, otherwise the wax will degrade rapidly. Where it is planned to strip a protected floor in order to remove the "old" layers of wax will have to use the stripper Jontec. 1.Where necessary / desired to renew the wax layer, that is, put a "new" layer on top of "old" layer , have to make a shallow etching with Jontec Forward with the aim to clean deep into the last layer wax and prepare the pavement for more new layer. Not thereby run the risk of putting a new layer on top of dirt, thus minimizing the effect of dirt.

### Initial inspection

The surface must be inspected to ensure all dirt is removed, and that it is clean.

### Precautions

The placement of equipment, goods, furniture, cabinets, every precaution must be taken to minimize the appearance of scratches.

The drag of equipment, furniture and chairs with wheels can cause scratches and marks on the pavement.

### Spills

Any liquid spills should be cleaned up, absorbed and removed as soon as possible. This procedure is not only responsible action with regard to hygiene, health and Safety and helps to maintain the appearance of the coating. After removal of the



# GlobalThane GN220US/GN221UC

liquid, the affected area should be cleaned with the equipment and products used for maintenance. If you applied the wearing recently, it is necessary to inspect the entire area, and verify that it was not affected. If so, this should be reapplied as quickly as possible.

## Attention

Initial cleaning before entry into use; caution when installing equipment; wear layer, if necessary, regular cleaning with suitable products, cleaning spills.

For more information details, analysis of particular cases, cleaning and / or pavement maintenance applied, contact local supplier of cleaning products.