



# Flooring Manual System



## 1. Surface Preparation

Surface preparation is the basis for a successful application of all resin floors systems.

A substrate's nature and qualities are essential for the adhesion and durability of all floorings executed with Globalnavy Systems.

**Success of any floor resin application is achieved when:**

- Good analysis of the current condition of the floor
- Specification is done by professionals and respects the intended use
- Application is conducted by approved installers who maintain good quality Standards
- Substrates have sufficient preparation and conditions for good adhesion and durability of the flooring system
- Suitable mechanical equipment.

The equipment to be used, depends on the flooring system to be applied. The greater is the thickness a more demanding preparation is required.



The latest innovation in the field of flooring preparation, is diamond grinding.

This system cuts the surface by using different diamond particle sizes (depending on the requirements as to the finish floor), from very abrasive to very fine pore opening. It is also possible to use this system after scarifying a floor, in order to obtain a smoother substrate, and savings in the quantity of resin required. Diamond grinding is the most widely used preparation system, totally dry and specially advised for coatings / paints for low thickness flooring systems.



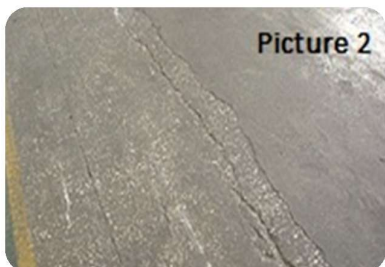
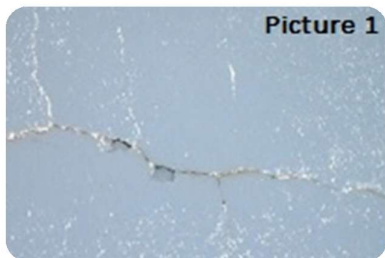
The sander machine consists of a rotating disc, incorporating tungsten grit, sand paper or corundum. Sanding machine is now increasingly being used to improve the adhesion between coatings of subsequent layers by sanding between coats, or for preparation of small areas.



The vacuum cleaner is essential to leave the work area completely free of dust, both on the ground and in suspension in the air. In flooring preparation it is important to have a powerful and adequate vacuum cleaning machine as well as that allows to work in parallel to the substrate preparation equipment.



This type of equipment "thermo-hygrometer" is a non-destructive combination of moisture content in concrete and wood per pins for the flooring industry. Excess moisture on floor can cause numerous problems "osmose" in all types of coatings, leading to poor flooring and can even cause damage to the structure.



**The support should have the following characteristics:**

1. Dry (both on the surface and inside)
2. Leveled
3. Cohesive
4. Free of cracks (to be pretreated)
5. Clean, free of dust and debris and loose materials and free of oils, grease or other chemical impurities.

These conditions are relatively easy to obtain in case of new floor construction, but refurbishments can demand major treatments to conform to the standards required for long term trouble free performance.

- ✓ In areas of treatment terminations (edges), resins must never be left so that they are "floating" or simply deposited on the pavement. To avoid this, make radial cuts in the flooring at those points where the treatments terminate, thus achieving a mechanical anchoring.

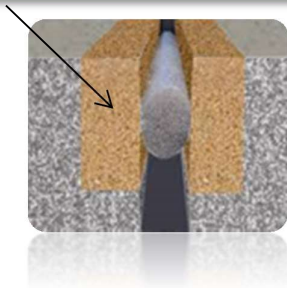
In case of damage floor, before surface treatment, care should be taken:

- When there is disaggregated or split concrete (**Picture 1**), this must be removed and filled with epoxy mortar **GlobalDur GN120ER added with micronized silica sand**.
- When there is a low thickness deformation in the concrete (**Picture 2**), the area must be filled with epoxy **GlobalDur GN120ER resin added with special thixotropic**.
- If there are repairs that have already been performed but are not solid, they should be removed and follow the objections of **Pictures 1 and 2**.

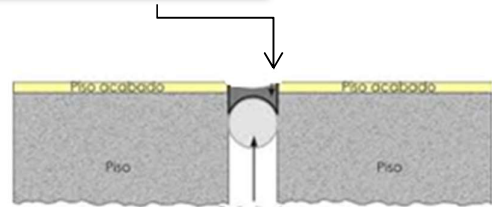
## 2. Treatment of Joints in Flooring Exposed to Forklift Traffic

This construction detail is very important for intensive use industrial buildings, in which the joints are exposed to the FLT wheels, some of which are made from very hard and abrasive polymers (Nylon / Teflon).

**Epoxy Mortar**  
**GlobalDur GN120ER + Quartz**



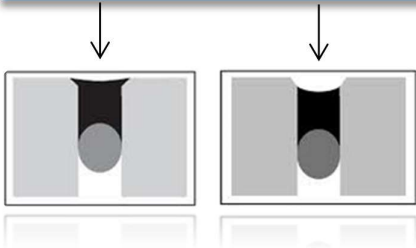
**Adhesion Pomoter**  
**GlobalDur GN120ER**



**Cord Polietileno**

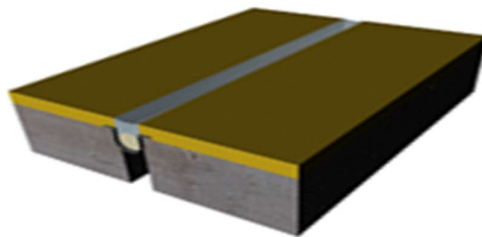


**Polyurethane Mastic**  
**GlobalThane GN220US + Cement**



**Filling**

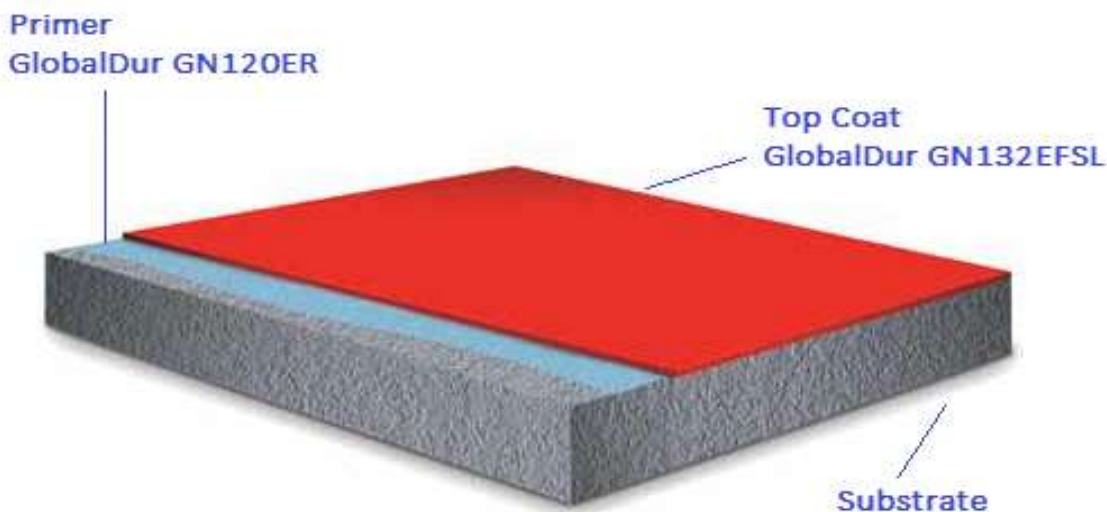
**Finish**



### 3. GlobalFloor Smooth Systems

#### 3.1 GlobalFloor Paint System

- ✓ This system is suitable for indoor.
- ✓ The applications sites vary from: Factories, Stores, Car Parks, etc.



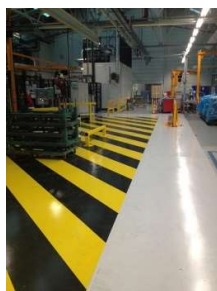
Type of Support	GlobalDur GN120ER	GlobalDur GN114EP	GlobalDur GN112EP
Dry Concrete	300 gr/Sqm	-	-
Concrete with humidity	-	300 gr/Sqm	-
Ceramic or Vitrified tile	-	-	100 gr/Sqm

- ✓ The existing cracks shall be treated before application of primer and re-check after the 1<sup>st</sup> coat o primer.
- ✓ The repairs should be done by using an epoxy putty (epoxy mixture with thixotropic additive).
- ✓ The absorption of primer will tell whether a second coat of primer is needed.
- ✓ It is very important to lift the masking tape after a few minutes, preventing that product dries on it, otherwise you will need to cut it.
- ✓ This product can be applied using different techniques (short or long fiber rollers, flat flexible rubber, spreader, etc).

GlobalDur GN120ER	GlobalDur GN132EFSL	GlobalThane GN200Series (Alternative)
300 gr/Sqm	300 gr/Sqm	100 gr/Sqm

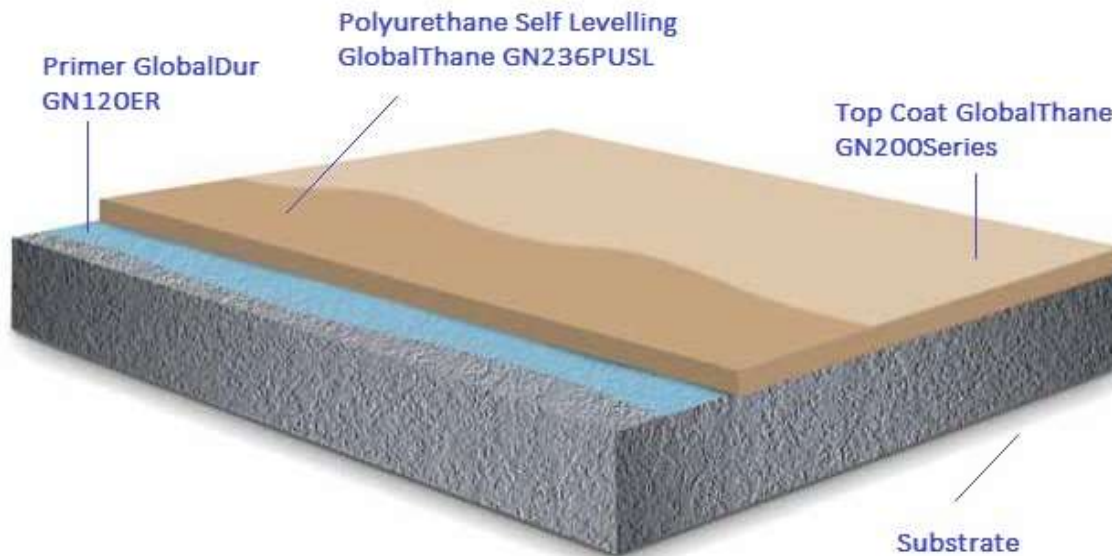
- ✓ Depending on the thickness, the support, and the desired effect, apply one or more coats of GlobalDur GN132EFSL. In general do not exceed a total of 300 microns thickness per coat.
  - ✓ This product can be applied using different techniques (short or long fiber rollers, flat flexible rubber, spreader, etc).
  - ✓ The above different applications depends on the system to the circumstances of each job and desired finish.
- **Note:** It is recommended in any case to protect the GlobalFloor with WAX before putting into service.

**Some Works performed with GlobalFloor Paint Systems**



### 3.2 GlobalFloor Polyurethane SL System

- ✓ High performance self levelling flooring. It is a 2 component 100% solids resilient polyurethane a great decorative potential. The thickness goes from 2 to 6 mm. This continuous floor, transforms an ordinary floor into a decorative aesthetically appealing.
- ✓ The applications sites vary from: Offices, Stores, Libraries, Houses, Health Care, Schools, etc.



Type of Support	GlobalDur GN120ER	GlobalDur GN114EP	GlobalDur GN112EP
Dry Concrete	300 gr/Sqm	-	-
Concrete with humidity	-	300 gr/Sqm	-
Ceramic or Vitrified tile	-	-	100 gr/Sqm

- ✓ The existing cracks shall be treated before application of primer and re-check after the 1<sup>st</sup> coat o primer.
- ✓ The repairs should be done by using an epoxy putty (epoxy mixture with thixotropic additive).
- ✓ The absorption of primer will tell whether a second coat of primer is needed.
- ✓ It is very important to lift the masking tape after a few minutes, preventing that product dries on it, otherwise you will need to cut it.

GlobalDur GN120ER	Self Levelling GlobalThane GN236PUSL + Quartz Powder or Silica Sand	GlobalThane GN200Series
300 gr/Sqm	1,2 Kg/Sqm/mm with 20% Quartz powder or Silica Sand	100 gr/Sqm
<b>Obs</b>	If substrate is Ceramic, Vitrified tile or Humid apply 1st the adequate primer and then the system with GlobalDur 120ER	

- ✓ It is applied in the desired colour and micronized quartz powder / sílica sand are added in fine particle size (0.1 to 0.3 mm).
  - ✓ Spread with rake or notched trowel. Few minutes after applying the self levelling GlobalThane GN236PUSL, you must pass the area with a spike roller to remove any trapped air.
  - ✓ A finish coat of GlobalThane GN200Series must be applied using different techniques (short or long fiber rollers, flat flexible rubber, spreader, etc).
- **Note:** It is recommended in any case to protect the GlobalFloor with WAX before putting into service.

**Some Works performed with GlobalFloor Polyurethane SL System**





## 4. GlobalFloor Quartz Systems

### 4.1 GlobalFloor AntiSkid Systems

5. A multilayer system based on 100% solids epoxy resins for indoor areas.
6. System with excellent mechanical and chemical resistance for indoor use only, with 2 to 4 mm thickness.
7. Application is based on different layers of resins and aggregates designed for obtaining a uniform and high performance rough floor.
8. Its characteristics vary depending on the type of system selected.
9. The applications sites vary from: Industrial kitchens, Slaughterhouses, Workshops, Warehouses, etc.



Type of Support	GlobalDur GN120ER	GlobalDur GN114EP	GlobalDur GN112EP
Dry Concrete	300 gr/Sqm	-	-
Concrete with humidity	-	300 gr/Sqm	-
Ceramic or Vitrified tile	-	-	100 gr/Sqm

- ✓ The existing cracks shall be treated before application of primer and re-check after the 1<sup>st</sup> coat o primer.
- ✓ The repairs should be done by using an epoxy putty (epoxy mixture with thixotropic additive).
- ✓ The absorption of primer will tell whether a second coat of primer is needed.
- ✓ It is very important to lift the masking tape after a few minutes, preventing that product dries on it, otherwise you will need to cut it.

GlobalDur GN120ER	Micronized Sand	GlobalDur GN120ER + Quartz Powder	Quartz Colour	GlobalDur GN120ER	Obs
300 gr/Sqm	2 Kg/Sqm 0,3 to 0,4 mm	1,2 Kg/Sqm with 25% Quartz powder	4 Kg/Sqm	800 gr/Sqm	x

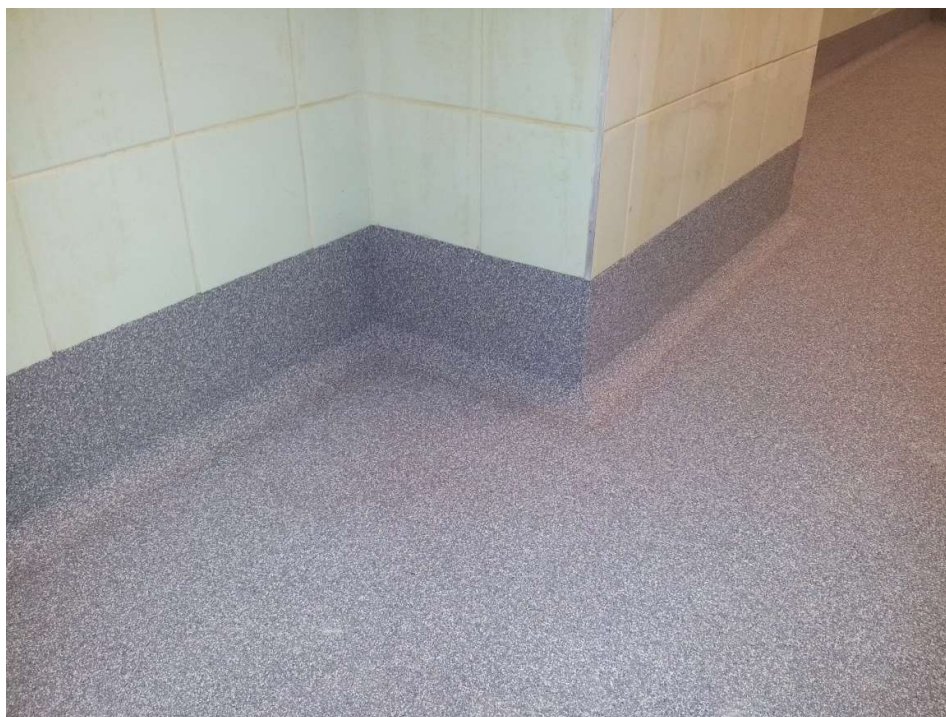
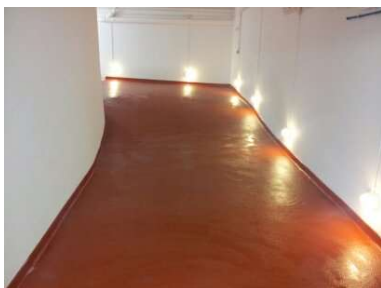
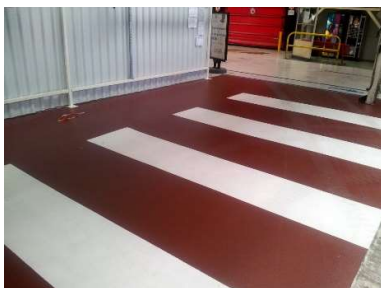
Obs	
	If substrate is Ceramic, Vitrified tile or Humid apply 1st the adequate primer and then the system with GlobalDur 120ER

- ✓ The 1st layer of GlobalDur GN120ER must be sanded with Silica sand (0,3 to 0,4 mm) onto fresh resin.
- ✓ The day after sweep and vacuum de floor
- ✓ Apply a 2<sup>nd</sup> layer of GlobalDur GN120ER added with Quartz powder with a trowel up to 1 to 1,5 mm thickness and sprinkle Quartz colour (0,4 to 0,8 mm) onto the fresh resin.
- ✓ Sweep the pavement and make the half cane in the periphery of the pavement.
- ✓ A finish coat of GlobalDur Gn120ER must be applied using different techniques (short or long fiber rollers, flat flexible rubber, spreader, etc).

Note: There is the option of completing the system with a pigmented finish. In this case the aggregate used is colour free and the top coat will be pigmented GlobalDur GN132EFSL resin (System 2)

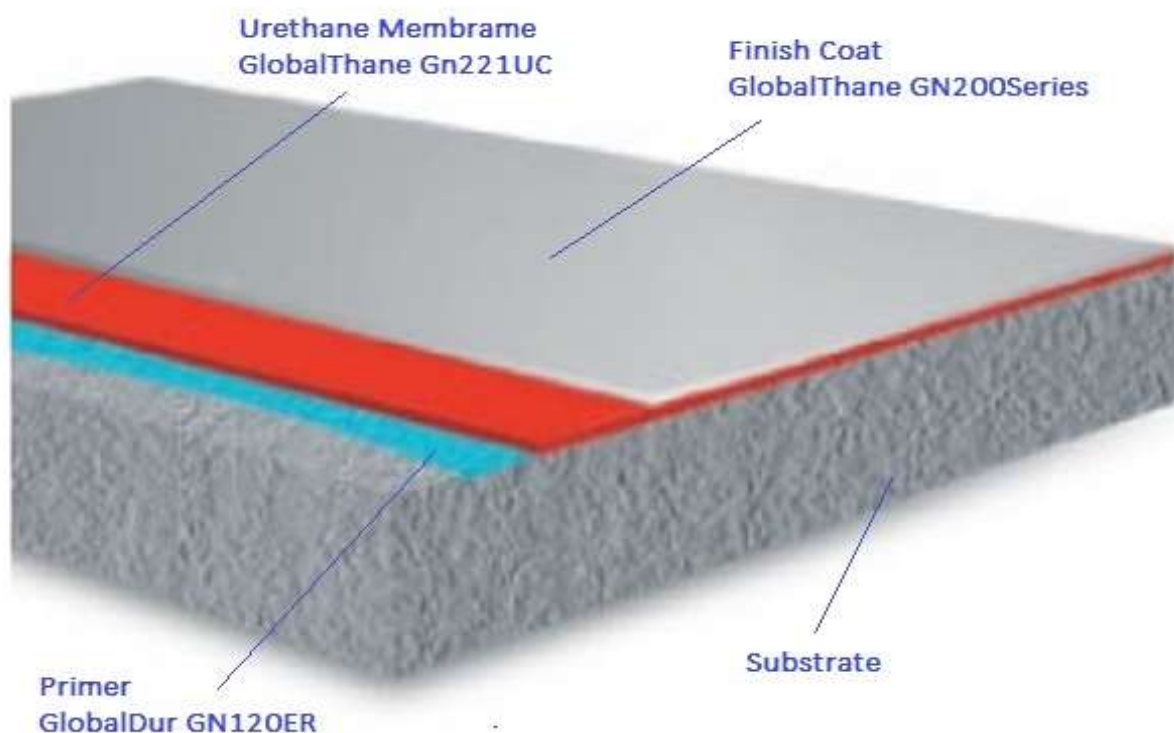


## Some Works performed with GlobalFloor AntiSkid Systems



## 5. GlobalFloor WaterProofing System

- ✓ It is an excellent urethane coating 100% solids with high elasticity.
- ✓ It is a system that resists to pedestrian traffic.
- ✓ It acts as a bridge of cracks, due to its high elasticity.
- ✓ Durable and resistant to environmental exposure.
- ✓ The applications sites vary from: Gutters, terraces, balconies, outdoor areas, etc.



Type of Support	GlobalDur GN120ER	GlobalDur GN114EP	GlobalDur GN112EP
Dry Concrete	300 gr/Sqm	-	-
Concrete with humidity	-	300 gr/Sqm	-
Ceramic or Vitrified tile	-	-	100 gr/Sqm

- ✓ The existing cracks shall be treated before application of primer and re-check after the 1<sup>st</sup> coat o primer.
- ✓ The repairs should be done by using an epoxy putty (epoxy mixture with thixotropic additive).
- ✓ The absorption of primer will tell whether a second coat of primer is needed.
- ✓ It is very important to lift the masking tape after a few minutes, preventing that product dries on it, otherwise you will need to cut it.

GlobalDur GN120ER	GlobalkThane GN221UC	GlobalThane GN200Series
300 gr/Sqm	300 gr/Sqm	150 gr/Sqm

<b>Obs</b>	If substrate is Ceramic, Vitrified tile or Humid apply 1st the adequate primer and then the system with GlobalDur 120ER.
------------	--

- ✓ Either the primer as the intermediate urethane coat products can be applied using different techniques (short or long fiber rollers, flat flexible rubber, spreader, etc).
- ✓ The above different applications depends on the system to the circumstances of each job and desired finish.
- ✓ A finish coat of GlobalThane GN200Series must be applied using different techniques (short or long fiber rollers, flat flexible rubber, spreader, etc).

**Some Works performed with GlobalFloor AntiSkid Systems**



## 6. GlobalWall Water Based Epoxy System

- ✓ Water based epoxy coating for concrete walls, plaster
- ✓ Absence of odor, Excellent covering capacity,
- ✓ Good aesthetic appearance,
- ✓ Good chemical resistance,
- ✓ Good sag resistance.
- ✓ Easy to apply.
- ✓ The applications sites vary from: Factories, Kitchens, Laboratories, Schools, Hospitals, etc.

GlobalDur GN150EW	GlobaDur GN151EW	Obs
100 microns/Sqm	200 microns/Sqm	x

Obs	Depending on the substrate, a 2nd coat, shall be applied. Do note apply high thickness on the primer. It is not a Thixotropic product.
-----	--

## Some Works performed with GlobalWall System





## Maintenance Repairs

Maintenance begins after completion of the work and should include regular monitoring visits.

- **MAINTENANCE**

Maintenance should be done for all floors dependent on their use. This maintenance will include the following:

- Periodic floor cleaning should be done with neutral or enzymatic detergent (neutral / non-corrosive PH), so as not to affect the pavement characteristics.
- Verification of maintenance of different structures, joints, treatments on up stands...
- It is possible to use protective waxes for floors (ask Globalnavy technical Department). In such cases, it is important to follow the instruction for each specific wax (cleaning and removal...). Prompt removal of spillages or potential contaminants.
- Verification of any cracks that may be caused by inappropriate use.

For decorative uses it will be necessary to apply additional layers of top coats depending on their use: wear, traffic, exposure to chemicals...

- **REPAIRS**

In all cases, the repair must be performed on clean, dry media. All areas where resin has lifted up or become loose must be eliminated.

- **SURFACE**

If the superficial damage is due to wear or degradation.

Proceed by sanding the surface, thoroughly vacuum clean and then apply a new coat.

The selection of this new repair layer depends on the initial system installed and the final characteristics Required: i.e. in exactly the same way as was considered at the time of initial application of the flooring.

- **SIGNIFICANT DAMAGE**

If damage is significant the first point to research is how the floor was damaged. Once the cause is identified and rectified the floor can be re-laid with appropriate guarantees.

Precise repair systems vary depending on the system that already existed and the reasons for the damage.

## Remarks

The above mentioned scheme values are theoretical and do not contemplate additional consumptions due to the porosity of the substrate, surface profile, variation of leveling or wastes, etc.