



# PPG Flooring Solutions

For factories and warehouses



**PPG Protective &  
Marine Coatings**

Bringing innovation to the surface.™

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## For factories and warehouses

**PPG Protective & Marine Coatings (PPG) is a world leader in protective and marine coatings.**

Our global capabilities and respected protective coatings brands enable us to provide our customers with exceptional products, performance and service. Our proven and trusted products protect a wide range of assets for the most demanding markets and environments, including:

- Civil Infrastructure
- Marine
- Mining
- Offshore
- Petrochemical
- Power
- Rail

PPG has the scale and resources to deliver outstanding support with well-established operations in over 60 countries. Continuous development ensures that we provide optimum solutions for asset owners, contractors, fabricators and applicators across the globe, helping our customers to meet the challenges they face today and tomorrow.

**Experience, innovation and integrity – that is what makes PPG the ideal coatings partner.**



PPG has a long track record in the protection of industrial floors in the most severe environments. Floorings typically need high durability to withstand impact and abrasion by pedestrians, machinery and forklifts. Additional features required include cleanability, chemical resistance and appearance plus, depending on use, smooth or anti-skid floors may also be preferred.

PPG has been a clear leader for many years in chemical-resistant coating solutions and use this knowledge to offer excellent chemical-resistant floor coatings. PPG also has extensive experience in the nuclear power sector, where high standards are demanded for cleanability, impact resistance and durability.

### Our offer

PPG offers four types of floorings, depending on the required frequency and type of usage. The most suitable option is shown in the table below:

Frequency	High	[Color-coded cells]		
	Frequent	[Color-coded cells]		
	Occasional	[Color-coded cells]		
		Foot/Trolleys	Forklifts/Cars	Cars/Trucks
		Usage/Traffic		

- NU KLAD™ Aqua/Basic 120 DFT (µm)
- NU KLAD Coating 350 DFT (µm)
- NU KLAD SL 2000 DFT (µm)
- NU KLAD HD 2000-4000 DFT (µm)

In addition to durability requirements, additional features may be desired, such as aesthetic performance, UV resistance and anti-skid options. The state and type of surface will also require specific solutions. In order to meet these requirements, PPG offers a number of primer and topcoat options that are explained in detail on the following pages.

## Industrial areas with occasional light traffic

Many factory floors and showrooms may have limited traffic, but still need impact resistance against pedestrians, machinery, and falling and bumping materials. Therefore, it is important to have a durable coating that forms a resistant barrier between the concrete surface and the environment.

Depending on application preferences, PPG offers a solvent-borne and a waterborne solution: the *NU-KLAD BASIC* and *NU-KLAD AQUA*.

### Primer options

For direct application on concrete, PPG advises using a thinned version of the *NU-KLAD BASIC* or *NU-KLAD AQUA* as the primer. This is typically applied as one layer up to saturation of the concrete.

### Topcoat options

Epoxy coatings are generally not resistant to UV and can be susceptible to yellowing over time. Therefore, a polyurethane topcoat on top of the *NU-KLAD BASIC* or *NU-KLAD AQUA* can be added to offer additional aesthetic performance. This option also offers a wider range of colors for gloss or semi-gloss options and PPG recommends the semi-gloss *SIGMADUR™ 520* and gloss *SIGMADUR 550* products

### Anti-skid options

When additional grip is required, anti-skid powder can be added (more information on the application can be found in the *NU-KLAD BASIC* and *NU-KLAD AQUA* product datasheets).



Frequency	High			
	Frequent			
	Occasional			
		Foot/Trolleys	Forklifts/Cars	Cars/Trucks
<b>Usage/Traffic</b>				

### NU-KLAD BASIC

- Solvent-borne epoxy coating
- Fast return to service
- Good abrasion resistance
- Available in a broad range of colors
- Suitable for use with anti-skid
- Semi-glossy appearance

### NU-KLAD AQUA

- Waterborne epoxy coating
- Fast return to service
- Good abrasion resistance
- Available in a broad range of colors
- Suitable for use with anti-skid
- Flat appearance

### System recommendation - Solvent-borne

Layer	Solution	DFT
Primer	Thinned NU-KLAD BASIC	Up to saturation of the concrete
Flooring	NU-KLAD BASIC	125 µm
Topcoat	SIGMADUR 520 or SIGMADUR 550	50 µm

### System recommendation - Waterborne

Layer	Solution	DFT
Primer	Thinned NU-KLAD AQUA	Up to saturation of the concrete
Flooring	NU-KLAD AQUA	2 x 60 µm
Topcoat	SIGMADUR 520 or SIGMADUR 550	50 µm



## Industrial areas with frequent traffic

For high frequency foot and trolley usage, frequent forklifts and car usage and/or occasional trucks, PPG has developed the *NU-KLAD COATING*. This solvent-free epoxy forms a 350- $\mu\text{m}$  layer and is more abrasion- and impact- resistant than the *NU-KLAD BASIC* and *NU-KLAD AQUA* options.

### Primer options

For direct application on concrete, PPG advises using *NU-KLAD IMP* as an impregnating primer. *NU-KLAD IMP* is suitable for *NU-KLAD COATING*, *NU-KLAD SL* and *NU-KLAD HD* and is typically applied in one layer up to saturation of the concrete.

### Topcoat options

Epoxy coatings are generally not resistant to UV and can be susceptible to yellowing over time. Therefore, a polyurethane topcoat on top of the *NU-KLAD COATING* can be added to offer additional aesthetic performance. This option also offers a wider range of colors for gloss or semi-gloss options and PPG recommends the semi-gloss *SIGMADUR 520* and gloss *SIGMADUR 550* products.

### Anti-skid options

When additional grip is required, anti-skid powder can be added (more information on the application can be found in the *NU-KLAD COATING* product datasheet).

Frequency	High			
	Frequent			
	Occasional			
		Foot/Trolleys	Forklifts/Cars	Cars/Trucks
<b>Usage/Traffic</b>				

### *NU-KLAD COATING*

- Solvent-free epoxy coating
- Good abrasion resistance
- Excellent resistance against hot tires
- Available in a broad range of colors
- Glossy appearance

### System recommendation

Layer	Solution	DFT
Primer	<i>NU-KLAD IMP</i>	Up to saturation of the concrete
Flooring	<i>NU-KLAD COATING</i>	350 $\mu\text{m}$
Topcoat	<i>SIGMADUR 520</i> or <i>SIGMADUR 550</i>	50 $\mu\text{m}$





## Industrial areas with heavy traffic

Industrial floors and specifically floors of warehouses are heavily impacted by forklifts and trucks and need a stronger and thicker barrier. In order to meet these demanding requirements, PPG has developed the *NU-KLAD SL*. *NU-KLAD SL* is a self-leveling, solvent-free epoxy, therefore being easy to apply. It forms a strong barrier between the concrete surface and atmosphere and has specifically strong mechanical resistance.

*NU-KLAD SL* also has excellent chemical resistance against spillage of diesel or gasoline and has been tested for 'hot tires' resistance.

### Primer options

For direct application on concrete, PPG advises using *NU-KLAD IMP* as an impregnating primer. *NU-KLAD IMP* is suitable for *NU-KLAD COATING*, *NU-KLAD SL* and *NU-KLAD HD* and is typically applied in one layer up to saturation of the concrete.

### Topcoat options

Epoxy coatings are generally not resistant to UV and can be susceptible to yellowing over time. Therefore, a polyurethane topcoat on top of *NU-KLAD SL* can be added to offer additional aesthetic performance. This option also offers a wider range of colors for gloss or semi-gloss options and PPG recommends the semi-gloss *SIGMADUR 520* and gloss *SIGMADUR 550* products.

### Anti-skid options

When additional grip is required, anti-skid powder can be added (more information on the application can be found in the *NU-KLAD SL* product datasheet).

Frequency	High			
	Frequent			
	Occasional			
		Foot/Trolleys	Forklifts/Cars	Cars/Trucks
		Usage/Traffic		

### NU-KLAD SL

- Solvent-free, self-leveling epoxy coating
- Excellent abrasion resistance
- Excellent resistance against hot tires
- Available in a broad range of colors
- Suitable for use with anti-skid
- Smooth and glossy appearance

### System recommendation

Layer	Solution	DFT
Primer	NU-KLAD IMP	Up to saturation of the concrete
Flooring	NU-KLAD SL	2000 µm
Topcoat	SIGMADUR 520 or SIGMADUR 550	50 µm



## The ultimate solution for high- abrasion flooring requirements

Truck loading bays and truck entry areas with slopes typically require a high-abrasion resistance anti-slip surface. *NU-KLAD HD* is a heavy-duty, self-leveling, solvent-free epoxy that includes an anti-skid aggregate, which stands out from the flooring and forms a rough and robust surface.

*NU-KLAD HD* is also used for bridge decks where its abrasion- and weather resistance is an important feature and offers a lightweight alternative over concrete or asphalt.

### Primer options

For direct application on concrete, PPG advises using *NU-KLAD IMP* as an impregnating primer. *NU-KLAD IMP* is suitable for *NU-KLAD COATING*, *NU-KLAD SL* and *NU-KLAD HD* and is typically applied in one layer up to saturation of the concrete.

### Topcoat options

*NU-KLAD HD* is typically used where a rough and robust surface is required. Therefore, no polyurethane topcoats are advised.

Frequency	High			
	Frequent			
	Occasional			
		Foot/Trolleys	Forklifts/Cars	Cars/Trucks
<b>Usage/Traffic</b>				

### *NU-KLAD HD*

- Solvent free, self-levelling, anti-skid epoxy coating
- Excellent abrasion resistance
- Excellent dry and wet anti-skid property
- Excellent resistance against hot tires
- Rough and flat appearance

### System recommendation

Layer	Solution	DFT
Primer	<i>NU-KLAD IMP</i>	Up to saturation of the concrete
Flooring	<i>NU-KLAD HD</i>	2000 - 4000 µm

## Product overview

For a complete overview of PPG's solutions and the relevant product datasheets, please check the corporate website: [www.ppgpmc.com](http://www.ppgpmc.com)

The table below shows an overview of the key characteristics of our products mentioned in this brochure.

Product	Description	Key characteristics		Options		Application
		VS%	Typical DFT	Primer options	Topcoat options	Application by
NU-KLAD BASIC	Solvent-borne epoxy for occasional light traffic industrial floors	72%	125 µm	Thinned version NU-KLAD BASIC	Polyurethane (see options below)	Roller
NU-KLAD AQUA	Waterborne epoxy for occasional light- traffic industrial floors	53%	2 x 60 µm	Thinned version NU-KLAD AQUA	Polyurethane (see options below)	Roller
NU-KLAD COATING	Solvent-free epoxy for medium-traffic floors	100%	350 µm	NU-KLAD IMP	Polyurethane (see options below)	Trowel plus roller
NU-KLAD SL	Solvent-free epoxy for heavy-traffic floors	100%	2000 µm	NU-KLAD IMP	Polyurethane (see options below)	Trowel plus spike roller
NU-KLAD HD	Solvent-free epoxy for high- abrasion, heavy -traffic floors	100%	2000 – 4000 µm	NU-KLAD IMP	N/A	Trowel plus spike roller
NU-KLAD IMP	Solvent-free, impregnating epoxy floor primer	100%	Up to saturation of the concrete	N/A	N/A	Roller/ Trowel

### Topcoat options

Product	Description	VS%	Typical DFT	Appearance
SIGMADUR 520	Aliphatic acrylic polyurethane semi-gloss finish coat	58%	50 µm	Semi-gloss
SIGMADUR 550	Aliphatic acrylic polyurethane gloss finish coat	55%	50 µm	Gloss







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