

# **PPG Flooring Solutions**

For factories and warehouses



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# 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
- Petrochemical
- Marine
- Power
- Mining
- Rail
- Offshore

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 chemicalresistant 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:



NU KLAD™ Aqua/BasicNU KLAD CoatingNU KLAD SL

120 DFT (μm) 350 DFT (μm) 2000 DFT (μm)

■ NU KLAD HD

2000 DFT (μm) 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).





#### **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-µm layer and is more abrasion- and impact- resistant than the *NU-KLAD* BASIC and *NU-KLAD* AQUA options.

#### **Primer options**

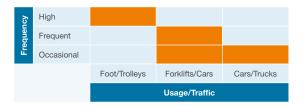
For direct application on concrete, PPG advises using NU-KLAD IMP as an impregnating primer. NU-KLAD IMP is suitable for NU-KLAD COATING, NU-KLAD SL and NU-KLAD HD and is typically applied in one layer up to saturation of the concrete.

#### **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).



#### **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	NU-KLAD IMP	Up to saturation of the concrete	
Flooring	NU-KLAD COATING	350 µm	
Topcoat	SIGMADUR 520 or SIGMADUR 550	50 μm	



# 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).



#### **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.

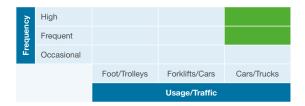
NU-KLAD HD is also used for bridge decks where its abrasion- and weather resistance is an important feature and offers a lightweight alternative over concrete or asphalt.

#### **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.



#### **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	NU-KLAD IMP	Up to saturation of the concrete	
Flooring	NU-KLAD HD	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

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

	Key characteristics		Options		Application	
Product	Description	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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