

ENDURABOND 450

DESCRIPTION

ENDURABOND 450 is a rapid cure, chemical resistant, medium film build, solid colour finish epoxy floor coating system having negligible odour. It is available in a smooth, light non-slip and aggressive non-slip finish. ENDURABOND 450 provides a hard, durable finish. ENDURABOND 450 is based on the latest state of the art epoxy technology.

As an alternative to a solid colour finish, a decorative quartz or paint chip with clear glaze finish may be applied. Refer to Endurabond Flake and Endurabond Decorative Quartz.

Advantages:

- Rapid cure.
- Cures down to 5°C.
- Negligible odour.
- Very good wet edge properties
- Exceptional rolling/application properties.
- Can be applied without disturbing factory personnel.
- Can be applied at any thickness (unthinned).
- Available in smooth, light non-slip and aggressive non-slip finish.
- Easy to clean and hygienic.
- Semi-Gloss
- Can incorporate a decorative quartz or paint chip finish.

RECOMMENDED USES:

- General Purpose Concrete floors
- Workshops
- Warehousing
- Storage Facilities
- Canteens and Ablution blocks
- Dairy factories and milking sheds
- Hydro and machinery room floors
- Water and sewage treatment plants
- Suitable for aircraft hangar floors using **ARMAFLOOR 500** final Coat Polyaspartic Clear Glaze Coat

LIMITATION:

- Coatings made with ENDURABOND 450 will dull and may chalk on long-term exposure to sunlight and therefore is not recommended for exterior use if a semi-gloss finish is to be maintained.
- The product may discolour if comes into contact with aggressive chemicals, however, it's only considered a chemical attack if the hardness is affected

SURFACE PREPARATION:

- Concrete Must be cured at least 28 days at 21°C and 50% R.H. or equivalent time.
- Ensure that surfaces are clean and dry and free from preparation debris
- Surface preparation is to be completed by shot blasting or diamond grinding to remove existing coatings and laitance in order to provide a sound key for the coating.
- All concrete saw-cuts and expansion joints to be re-cut with diamond or masonry disc in order to clean out contaminants, dirt, etc. and to provide properly prepared joint surface and edges. This needs to be done before coating commences. Vacuum thoroughly to remove dust.
- Surface cracks to be filled using Enduabond Floor Screed.



SYSTEM OUTLINE:

1. Endurabond 450 (Smooth) 0.3mm

Component	Product	Coverage
Primer	Enduracoat EP Sealer OR	@ 5 - 6m ² per Litre
	Endurabond 300 ECO	@ 6 - 8m ² per Litre
1 st Coat	Endurabond 450	@ 8m ² per Litre
2 nd Coat	Endurabond 450	@ 8m ² per Litre
UV Topcoat*	Unithane**	@ 3 - 6 m ² per Litre

2. Endurabond 450 LNS (Light Non-Slip) 0.3mm

Component	Product	Coverage
Primer	Enduracoat EP Sealer OR	@ 5 - 6m ² per Litre
	Endurabond 300 ECO	@ 6 - 8m ² per Litre
1 st Coat	Endurabond 450	@ 8m ² per Litre
2 nd Coat	Endurabond 450	@ 8m ² per Litre
White Aluminium Oxide		
3 rd Coat	Endurabond 450	@ 2.0 - 3.0m ² per Litre
Alternative UV Topcoat*	Unithane PU** OR	@ 1.5 - 2m ² per Litre
	Armafloor 500AU	@ 2.0 - 3.0m ² per Litre

3. Endurabond 450 NS (Non-Slip) 1.5mm

Component	Product	Coverage
Primer	Enduracoat EP Sealer OR	@ 5.6m ² per Litre
	Endurabond 300 ECO	@ 6 - 8m ² per Litre
1 st Coat	Endurabond 450	@ 8m ² per Litre
2 nd Coat	Endurabond 450	@ 8m ² per Litre
Broadcast Aggregates @ 2Kg per m ²		
3 rd Coat	Endurabond 450	@ 2.0 - 3.0m ² per Litre
Alternative UV Topcoat*	Unithane PU** OR	@ 1.5 - 2m ² per Litre
	Armafloor 500AU	@ 2.0 - 3.0m ² per Litre

*UV Optional finish available.

** Apply Unithane PU in two applications.

Choice of aggregate will determine the degree of non-slip.

Fine non-slip: Quartz Sand J61W (<= 0.3mm)

Medium non-slip: Quartz Q1 (1mm).

Coarse non-slip: Quartz Q2 (2mm).

Decorative fine non-slip: coloured quartz (0.4-0.8mm).

Use Bauxite or Aluminium Oxide for severe abrasion and impact resistance.

Note: Use a foaming detergent with water spray or wet vacuum when cleaning non-slip floors.

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Primer Application

Enduracoat EP Sealer

Mixing: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Do not "hand-stir". Allow stand-in time to remove aeration caused by stirring. The EP Sealer has a 'Sweating In' period of 1 hr after mixing before application.

Application: apply an even coat of **Enduracoat EP Sealer** over the prepared substrate using a roller. For spray or brush application, may be thinned up to 25% by volume with Thinner P2

Endurabond 300 ECO

Mixing: Mix on low speed (300 rpm) for 3 minutes, scraping the sides and base of the mixing container, then slowly add 10% clean water while mixing for a further 2 minutes. Transfer to another clean container and mix for a further minute.

Application: Spread the material at 6 m² to 8 m² per litre (depends on porosity of substrate) by roller, or squeegee and then back roll using an 8-10mm nap roller to achieve a smooth, even finish

Application of ENDURABOND 450 Smooth

Mixing 1st Coat: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Add 10% Endurabond Thinner No:2 by volume to mixed **ENDURABOND 450** Parts A and B and mix for a further 2 minutes

Application 1st Coat: immediately after mixing apply by roller using a 10 mm nap sleeve (a larger nap will apply the coating at a higher film build which will reduce the non-slip texture. A smaller nap will not cover floor imperfections adequately). Allow to cure.

Mixing 2nd Coat: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Add 10% Endurabond Thinner No:2 by volume to mixed **ENDURABOND 450** Parts A and B and mix for a further 2 minutes.

Application 2nd Coat: once the first coat is hardened (within 24 hours), apply by roller the second coat of **ENDURABOND 450** using a 10 mm nap sleeve (a larger nap will apply the coating at a higher film build which will reduce the non-slip texture. A smaller nap will not cover floor imperfections adequately).

Application of ENDURABOND 450 LNS

Mixing 1st Coat: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Add 10% Endurabond Thinner No:2 by volume to mixed **ENDURABOND 450** Parts A and B and mix for a further 2 minutes.

Application 1st Coat: immediately after mixing apply by roller using a 10 mm nap sleeve (a larger nap will apply the coating at a higher film build which will reduce the non-slip texture. A smaller nap will not cover floor imperfections adequately). Allow to cure.

Mixing 2nd Coat: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Add 10% Endurabond Thinner No:2 by volume to mixed **ENDURABOND 450** Parts A and B and mix for a further 2 minutes. Add **60 Mesh White Aluminium Oxide** (5% (by weight) and mix for a further 1 minute.

Application 2nd Coat: once the first coat is hardened (within 24 hours), mix apply by roller the second coat of **ENDURABOND 450** using a 10 mm nap sleeve. To ensure the White Aluminium Oxide remain suspended, remix the container between each pour.

Application of ENDURABOND 450 NS

Mixing 1st Coat: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Add 10% Endurabond Thinner No:2 by volume to mixed **ENDURABOND 450** Parts A and B and mix for a further 2 minutes.

Application 1st Coat: immediately after mixing apply by roller using a 10 mm nap sleeve (a larger nap will apply the coating at a higher film build which will reduce the non-slip texture. A smaller nap will not cover floor imperfections adequately). While film is still wet, fully broadcast the non-slip aggregates to refusal. Allow to cure. Remove un-bonded aggregates by sweeping and vacuuming the surface.

Mixing 2nd Coat: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency. Add 10% Endurabond Thinner No:2 by volume to mixed **ENDURABOND 450** Parts A and B and mix for a further 2 minutes.

Application 2nd Coat: once the first coat is hardened (within 24 hours), apply by roller the second coat of **ENDURABOND 450** using a 10 mm nap sleeve (a larger nap will apply the coating at a higher film build which will reduce the non-slip texture. A smaller nap will not cover floor imperfections adequately).

Application of UNITHANE PU

Mixing: mix component A and component B separately, pour into a clean container and power mix (in the right proportion) to obtain a homogenous consistency.

Application: immediately after mixing apply by roller using a 10 - 13 mm nap sleeve. Allow to dry. Typical recoat time is minimum 3 hours to maximum 8 hours. If recoat window exceeded abrade the substrate prior to re-application of Unithane PU.

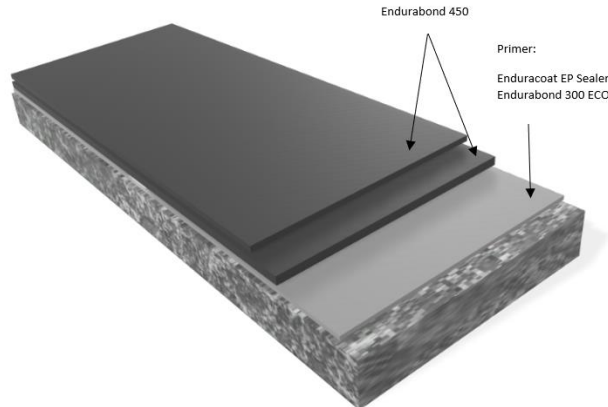
TRAFFICKING

Allow to cure for a minimum of 24 hours at temperatures no less than 10°C before light trafficking.

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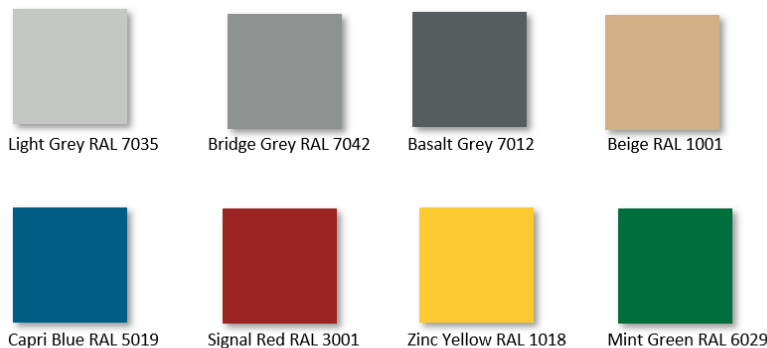
ENDURABOND 450

SYSTEM DESIGN



COLOUR CHART

Standard colour range for Endurabond 450 and Unithane PU. Some colours may require two coats for adequate hiding. Special colour by request. For further information please contact your Polymer Group representative or Customer Service.



NOTES:

- Coating components shall be power-stirred to obtain a homogenous consistency. Do not "hand-stir". Mix in one pail then transfer to a separate pail to remix and then use the material from the second pail on the floor. Allow stand-in time to remove aeration caused by stirring.
- Material Safety Data Sheets are available on request.
- Do not proceed with painting when surface temperature is less than 10°C or above 35°C; if less than 3°C above dew point; when the relative humidity of the atmosphere exceeds 85%; or when such conditions are expected within 4 hours of completion of painting work.
- Apply first coat as soon as possible after the preparation and before any deterioration of the surface.
- Practical coverage of products is project dependent.
- Thin the Endurabond 450 up to 10% to increase pot life and to assist rolling and brushing. Apply in two coats to maximise opacity and texture.
- This specification must be read in conjunction with the relevant technical data sheets.

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