



**Wear-resistant
and
chemical
resistant**

DuroFlex®681

1 component primer and impregnation sealant for concrete surfaces

DuroFlex®681 is a ready to use polyurethane resin. The contact with humidity creates a hard and tough layer with excellent adhesion on nearly every underground.

DuroFlex®681 is extremely abrasion resistant, impact resistant and in combination with the good chemical resistance the material could be used as concrete floor impregnation and sealing as well as a slip resistant intersperse layer, for oil and gas resistant high abrasion resistant concrete coatings, e.g. garages, warehouses and factories.

With DuroFlex®681 tempered concrete surfaces are abrasion resistant and doesn't create dust.

Coatings made of DuroFlex®681 are shiny and lucent. These films guarantees an excellent surface protection.

Processing

DuroFlex®681 is ready to use and applicated with a flat brush or roll. Surfaces with high density e.g. mirror concrete, or smoothed vacuum concrete should be treated with diluted DuroFlex®681 to increase the penetration and wettability. Dilution ratio 20 - 30% DuroFlex thinner 683. The primer layer under multi layer coatings should be diluted as well.

DuroFlex®681 hardens in contact with humidity in air and underground, traces of humidity are enough. The hardening time depends on film thickness, temperature and air humidity.

Films applied on glass plates of app. 200 µm thickness by 20°C and approx. 50% relative humidty

- dust dry after approx. 30 minutes
- stick free after approx. 5 hours
- mechanical fully resilient app. 24 hours.

Full resistance will be achieved after 7 days.



In case of sealing applications a wet film thickness of 250 µm shouldn't be exceeded. Thicker films hamper the humidity entry through skin creation which troubles the correct hardening. Thicker layers may create carbon dioxide bubbles and encase solvents.

If required thicker layers of DuroFlex 681 could be applied in multi operation cycles. Waiting time between the operation cycles app. 6-8 hours (20 °C)



The intermediate drying time when applying several coats - at approx. 50 % relative humidity and 20 °C - should not be extended over 24 hours.

In case of longer waiting times or the recoating of old films, intermediate sanding is recommended, otherwise adhesion problems will occur.

DuroFlex®681 has excellent adhesion on all mineral substrates, metal and wood. Preliminary tests are recommended for plastics, but the product is not intended for mastic asphalt and bitumen-bound surfaces.

For an optimum bond with subsequent coatings or to build up thicker layers, layers of DuroFlex®681 can be sprinkled with dry sand. The grading curve of the sand used should be selected so that the grains of sand are sufficiently embedded in the polymer film!

All substrates must be load-bearing, dry, dust-free and free of all separating residues. DuroFlex®681 should not be used to rework old paints or coatings.

Consumption naturally depends on the roughness and absorbency of the substrate and the application technique. As a guide, a consumption of approx. 200 - 300 gr/m² for the first coat of a "normally" smooth, absorbent concrete surface ("impregnation") and of 150 - 200 gr/m² for the second coat ("sealing") of such a surface can be assumed.

Films of DuroFlex®681, like all coatings of aromatic polyurethanes, are not UV resistant. They yellow when exposed to sunlight. The product should therefore not be used outdoors.

Properties

Type	Polymeric isocyanate (prepolymerised urethane)
Raw material base	MDI
Character	Oil-like liquid
Component	1 (Ready to use)
Consistence	Low viscosity
Viscosity	70 - 150 cSt. (mPa.s) at 20°C
Density	Approx. 1,01 gr/ml (20°C)+
Solid content	Approx. 35%
Colour	Brown, clear, film brownish transparent
Odour	Pleasantly fruity, like solvent
Flash point	>21°C

Storage Safety

The material should be stored in original cans always closed properly. DuroFlex®681 is a flammable liquid. Meanwhile storage or processing the ventilation must be sufficient. Light and open fire should be avoided.

A safety data sheet is available it contains all relevant information for the safe and secure handling and disposal.

These technical information describe the present-day state of knowledge these product. They should only inform about the possibilities of application and could not release the applicator of his commitment to check the possibility to use the product for the required application. Information for processing can be found in processing instructions of our product. Information about safe handling can be found in our current safety data sheet.

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ARCAN Waterproof

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