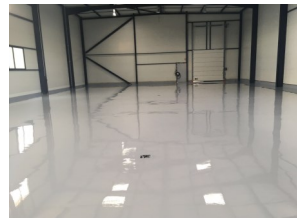


# RESOLTECH 1010 AD

## Hardeners 1013 & 1015

### Self levelling epoxy system

- Room temperature curing
- Choice of fast & slow hardeners
- Low sensitivity to weather conditions
- Simple mixing ratio & processing



**RESOLTECH 1010 AD / 1013 - 1015** is an epoxy system used mainly for flooring applications where good adhesion on most substrates is key, as well as surface aspect and hard wearing mechanical properties are needed.

Its little sensitivity to humidity and temperature make 1010 AD / 1013 - 1015 a choice system for applications all year long without having surface pollution defects.– the resin film has good gloss properties and is easy to clean and maintain.

The 1015 hardener is used in most cases, but **a slower version, the 1013 enables to work in hot climates and tropical conditions.**

Most customer will use epoxy pigments in order to obtain a full opaque colour or with compatible tints for translucent colours. RESOLTECH supplies most RAL colours pigment pastes. 10% of pigment paste is needed to colour the resin.

Clear coating with this resin is possible, enhancing the substrate it is applied on.

One layer of this system is generally enough for most applications. Customer desiring to enhance the deepness effect of coloured floors, may use a second coat of clear resin. This will also improve the lifespan of the coating as any wear and tear will happen on the transparent coat, leaving the colour coat underneath untouched.

For more **rugged flooring application with heavy machinery passage**, this system maybe **used in conjunction with silica sands** (same grade as swimming pool filters which are usually precisely calibrated) : once the resin mixed with its pigment and hardener, apply on the floor, and immediately after application, spread sand all over the resin until full covering of the resin is done with a layer of dry sand (3.5 to 4 kg/m<sup>2</sup>).

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The next day (24h at 23°C) the sand excess that did not adhere to the resin is removed with an industrial vacuum cleaner and a new coat of resin is applied, with again the sand spreading until full covering if deemed as necessary.

On waterproof substrates, wait 30 to 40 minutes before spreading sand to give some time to the resin to adhere well to the substrate and for the resin to start to increase viscosity. This also enables to reduce the sand consumption (2.5 to 3 kg/m<sup>2</sup>).

Thicknesses of 2 to 3mm are rapidly obtained with this technique, depending on the architect specifications. Once the final thickness is obtained (usually 1 to 2 coats), a last coat of resin should be applied by roller of rubber squeegee to ensure that the sand is covered and bonded to the undercoat.

The rugosity obtained will enable to have non slip floors that will resist to heavy duty traffic and regular pressured water washing, while being economical due to the addition of the sand. This technique will guarantee much longer wearing resistance of the floor coating compared to a paint film of only a few microns. Use Nail Spiked Shoes to walk over the freshly applied resin.

## Surface preparation

A good surface preparation is key to a good result.

It is best practise to always sand/shot blast all floors, new or old until a clean, solid and flat surface is obtained.

New concrete/cement floors all show cement latency on the surface. Sanding/planning/shot blasting is recommended to remove the latency.

Old floors if they show dirt, oil or greases should be first degreased and pressure washed, before sanding/shot blasting.

Metal floors should be degreased and sanded or sand blasted.

## Primer coat

In order to avoid air release from the concrete, wood or other porous substrate, it is recommended to use one coat of the **water based primer 1010 / 1014** (70 g/m<sup>2</sup>).

If the floor is being renovated and shows risk of presence of grease/soils or other pollutants, a thorough pressure washer cleaning is recommended to use RESOLTECH's solvent based primer **PRIMER A / PRIMER B44** instead of 1010 / 1014.

## Coverage

Application on uneven/rugged concrete surface: spread with a N°3 notched spatula (or serrated squeegee) 450 to 600 g of 1010 AD / 1013 or 1015. On even/smooth cement, apply 300 g/m<sup>2</sup> with a N°2 notched spatula.

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### MIXING RATIO

Systems	1010 AD / 1013	1010 AD / 1015
Mixing ratio by weight	100 / 45	
Mixing ratio by volume	2 / 1	

The mixing ratio must be accurately followed. It is not possible to change the ratio, it would result in lower mechanical properties. **The mixture should be mechanically stirred during no less than 5 minutes to ensure full homogeneity.**

### APPLICATION

The standard procedure of working with epoxy systems applies to 1010 AD / 1013 - 1015 system. **Products should be stored at least 24h before application & processed at a temperature close to 18-25°C.** A lower temperature will increase the mixed viscosity as well as its potlife. On the contrary a higher temperature will decrease the mixed viscosity and the potlife will be reduced. Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

### PHYSICAL PROPERTIES

#### Visual aspect

- 1010 AD : Clear liquid
- 1013 & 1015 : Slightly yellow liquid
- Mix : Clear liquid

#### Density

References	1010 AD	1013	1015
Density at 23°C	1.11	1.01	1.03
Mix density at 23°C	-	1.08	1.09

ISO 1675 (±0.05)

#### Viscosity

References	1010 AD	1013	1015
Viscosity at 23°C(mPa.s)	600	246	390
Mix viscosity at 23°C (mPa.s)	-	410	500

ISO 12058.2 (±15%)

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### REACTIVITY

Systems	1010 AD / 1013	1010 AD / 1015
Reactivity on 70mL at 23°C (thickness ~4cm)	7h25min	1h04min
Time at exothermic peak on 70mL at 23°C	3h47min	1h
Temperature at exothermic peak on 70mL at 23°C	35°C	78°C
Reactivity on 500g (4 cm high) at 23°C	2h26min	41min
Time at exothermic peak on 500g (4 cm high) at 23°C	139°C	170°C
Temperature at exothermic peak on 500g at 23°C	2h37min	49min
Gel time on 2mm film at 23°C	9h07min	3h50min

Measurements made with Rheotech®

### PACKAGING

Available kits of 1010 AD / 1013 & 1015 :

- 0.725 kg : (0.5+0.225) kg
- 2.9 kg : (2+0.9) kg
- 14.5 kg : (10+4.5) kg
- 43.5 kg : (30+13.5) kg
- 290 kg : (200+3x30) kg

### TRANSPORT & STORAGE

Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area. Our products are guaranteed in their original packaging (check expiry date stated on the label).

### HEALTH & SAFETY

Skin contact must be avoided by wearing protective nitrile gloves & overalls or other protective clothing. Eye protection should be worn to avoid risk of resin, hardener, solvent or dust entering the eyes. If this occurs flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention. Ensure adequate ventilation in work areas. Respiratory protection should be worn with ABEKP coded filters. RESOLTECH issues full Material Safety Data Sheet for all hazardous products. Please ensure that you have the correct MSDS to hand for the materials you are using.

Nota : The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply.