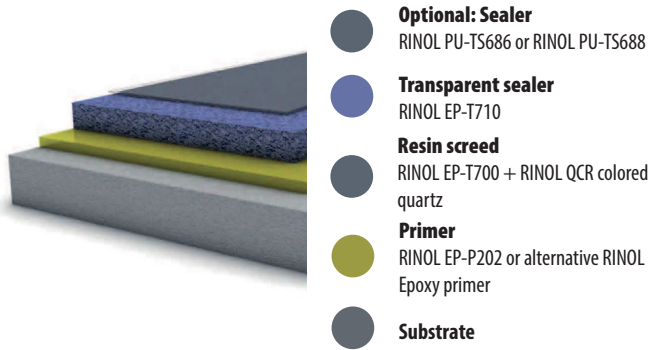




### 1. System description

RINOL SOLID is a multi-coat, epoxy screed system with colored quartz, designed for high traffic areas. It offers impact and compressive strength, chemical resistance, durability and customisable slip resistance, making it ideal for safety critical environments and food facilities.

### 2. System composition



### 3. Areas of application

The RINOL SOLID system is specifically designed to be applied in various types of industrial environments, adapting to the needs of several sectors, including:

- Medium to heavy duty use for industrial floors
- Pharmaceutical industry
- Food and beverage, manufacturing and packaging areas
- Supermarkets
- Exhibition centers
- Automotive industry
- Aircraft hangars

### 4. Properties

- Many colour combinations and patterns
- Low odour during application
- Durable and long lasting
- High mechanical resistances
- Hygienic and impervious
- Tailored anti-slip finish
- Jointless
- Good chemical resistance
- Meets EU requirements for food plants

### 5. Certifications

The individual products within RINOL SOLID system are certified to meet high quality standards:

Synthetic resin screed material according to EN 13813:2002

Coating for surface protection of concrete according to EN 1504-2:2004

ISEGA compliance for use as a floor covering in food handling and processing facilities.

### 6. Technical data

The RINOL SOLID system provides detailed technical data, including physical and mechanical properties:

Technical Data		
1	Thickness	8 - 10 mm
2	Maximum service temperature	60 °C
3	Compressive strength ( DIN EN 196 / ASTM C 109 )	115 N/mm <sup>2</sup>
4	Flexural strength ( DIN EN 196 / ASTM C 190 )	40 N/mm <sup>2</sup>
5	Elastic modulus (DIN 1048)	25000 N/mm <sup>2</sup>
6	Adhesive strength ( DIN ISO 4624 )	> 1,5 N/mm <sup>2</sup>
7	Abrasion resistance (Taber CS10 wheel) ( DIN 53754 / ASTM D 1044 )	80mg / 1000 cycles
8	Shore D hardness ( DIN 53505 / ASTM D 2240 )	84
9	Slip resistance ( DIN 51130 )	R9 - R13
10	Colour stability (scale 1-8, best=8) ( DIN EN ISO 877 )	7

### 7. Chemical Resistance

The RINOL SOLID floors, under ambient temperature conditions, demonstrate resistance to:

Weak mineral acids, such as hydrochloric, nitric, phosphoric, and sulfuric acids.

Alkaline substances, including sodium hydroxide up to 50% concentration.

Standard cleaning agents used for floor maintenance.

Sugars, even with repeated contacts.

Mineral oils, diesel, kerosene, and gasoline.

### 8. Available colours

The RINOL SOLID system is available in a wide range of colours, offering a broad selection to meet the aesthetic preferences of any project.

### 9. Application Instructions

#### 9.1. Substrates

9.1.1 Suitable substrates are concrete, polymer modified concrete or screeds, anhydrite or magnesite.

9.1.2 The substrate should have a minimum tensile strength of 1.5 N/mm<sup>2</sup>

and compressive strength of 25 N/mm<sup>2</sup> measured to an approved national standard.

**9.1.3** The substrate should be visibly dry. For concrete and polymer modified concrete, the moisture content should not exceed 4% by weight when measured according to a recognised standard. RINOL range includes primers that can optionally be used when the static moisture content reaches 6%, measured using CM (calcium carbide) Method. For anhydrite or magnesite substrates, moisture contents up to 0.8% by weight are acceptable.

**9.1.4** The substrate must be clean and free from dust and loose particles. All traces of contaminants such as oils, fats, greases, paint residues, chemicals, algae and laitance should be removed.

### **9.2. Preparation**

**9.2.1** The preferred method of surface preparation is vacuum blasting. Other methods such as scabbling, grit blasting or grinding may be used but are generally less satisfactory.

### **9.3. Priming / Regulating layer**

**9.3.1** The primer is mixed using an electric mixer, taking care to avoid the inclusion of air. When homogeneous, the mixture is poured onto the prepared surface and spread using a Kaub spatula or rubber spreader. Material consumption is 250 - 500 g/m<sup>2</sup> depending on the roughness of the substrate.

**9.3.2** Dry quartz sand (RINOL QS-20) is scattered on the wet primer at a rate of 800 - 1200 g/m<sup>2</sup> to ensure good adhesion between the coats.

**9.3.3** RINOL primers must not be applied when the temperature falls or is expected to fall within 3°C of the dew point.

### **9.4. Resin screed**

**9.4.1** The resin mortar should be applied once the primer has hardened but not completely cured. This will normally be after 12 – 15 hours.

**9.4.2** Before applying the following layer, remove excess silica sand and sand and vacuum the primer.

**9.4.3** The two components of RINOL EP-T700 should be mixed using an electric mixer taking care to avoid the inclusion of air. When the mix is homogeneous, the colored quartz mixture RINOL QCR should be added at the rate of 9 kg quartz to 1 kg resin and mixed again in a forced action mixer until homogeneous. The resulting mortar is poured onto the primed surface and spread using a spatula or trowel at a rate of approximately 2 kg/m<sup>2</sup>/mm, at a minimum thickness of 8mm (16 Kg/m<sup>2</sup>).

**9.4.4** The screed must not be applied when the temperature falls or is expected to fall within 3 °C of the dew point.

### **9.5. Transparent sealer**

**9.5.1** The transparent sealer should be applied once the resin mortar has hardened but not completely cured. This will normally be after 12 – 15 hours.

**9.5.2** The transparent sealer RINOL EP-T710 is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the resin mortar surface and spread using a spatula. It is then worked into the surface using a short pile mohair roller to ensure a complete seal. Material consumption will be approximately 500 g/m<sup>2</sup>

**9.5.3** A second application of transparent sealer should be made once the first application has hardened but not completely cured. This will normally be after 8 – 12 hours.

**9.5.3** RINOL EP-T710 must not be applied if the temperature falls or is

expected to fall to within 3 °C of the dew point.

**9.5.4** At 20 °C RINOL SOLID can be walked on after 18 to 24 hours, will reach full mechanical resistance after 7 days and full chemical resistance after 28 days.

### **10. Specification clauses for RINOL SOLID**

All products must be applied and cured at temperatures between 15 and 25°C and relative humidity <80%.

The primer shall be RINOL EP-P202 or equivalent applied at a rate of 250 – 500 g/m<sup>2</sup> in such a manner as to ensure complete sealing of the substrate surface.

Dry silica sand (RINOL QS 20) shall be broadcast into the wet primer at a rate of 800 – 1200 g/m<sup>2</sup>.

The resin mortar shall be RINOL EP-T700 filled with RINOL QCR quartz at a rate of 9 kg quartz to 1 kg resin. The resin mortar shall be applied at a rate of approximately 2 kg/m<sup>2</sup>/mm at a minimum thickness of 8 mm.

The clear sealer shall be RINOL EP-T710 applied in two applications at a rate of approx. 500 g/m<sup>2</sup> per application.

### **11. Maintenance**

The RINOL SOLID system is easy to maintain and clean. To ensure the longevity and performance of the system, it is essential to follow the maintenance instructions provided. This includes regular cleaning with suitable products to remove dirt and residue, periodic inspection of the floor for signs of wear and repair or replacement of damaged areas as necessary. With proper maintenance, the RINOL SOLID system can provide many years of reliable service.

### **12. Safety**

Safety is a priority at RCR Flooring Products Italia S.r.l. We provide information on safety and precautions during the application of the RINOL systems. This may include the use of personal protective equipment during application, adequate ventilation, prevention of exposure to chemicals, and proper disposal of product waste. It is important to follow all safety guidelines to ensure a safe working environment and maintain the integrity of the systems.

### **13. Health and Safety Measures**

Consult the latest valid Material Safety Data Sheet (MSDS) for the products that are part of the system and the Chemical Industry Guidelines on the Handling of Coating Materials (M004/M023) for information on the handling of the products. Wear suitable protective clothing such as gloves and goggles during application.

Skin contact with liquid resins can cause health damage and allergies. Once cured properly, the product is not hazardous.

### **14. Customer Service**

At RCR Flooring Products Italia S.r.l., we pride ourselves on providing exceptional customer service. Our team of experts are on hand to answer your questions, provide technical advice and help you choose the RINOL systems that best suit your needs. We also provide application information to ensure that our systems are installed correctly and deliver optimum performance.

### 15. Legal notice

The technical data for the Company's products and systems have been compiled with due care. However, any recommendations or suggestions made with regard to the use of these products are made without guarantee as the conditions under which they are used are beyond the control of the Company. It is the responsibility of the customer to determine whether the products are suitable for the particular application and whether the conditions of use are appropriate for the particular product. No liability can therefore be derived from the product data sheet.

Please note that only the latest version of the data sheet is valid and replaces all previous versions. The technical data given are approximate values determined by us and do not constitute a guarantee of properties. Misprints, errors, translation errors and changes reserved. Please note that the information in the system datasheets may differ in different languages/countries. For further information please visit our website at [www.rinol.com](http://www.rinol.com).

The technical data sheet does not exempt the user from carrying out his own application tests, if necessary, within the limits of his capabilities. Please refer to the RINOL Technical Guide for information on coating options and more detailed information on the installation of RINOL products.

### 16. CE Marking

The individual products that make up the system are certified according to DIN EN 13813 "Screed materials and floor screeds - Screed materials - Properties and requirements" (January 2003) and EN 1504-2. These standards specify the requirements for screed mortars used in internal floor constructions. Resin coatings and sealants are also covered by these standards. Products complying with the mentioned standards must have the CE mark.