General Aspects:
Once coating or polymer flooring has been selected it is essential that the surface preparation of concrete is done correctly, otherwise optimum performance will not be obtained.

New Concrete:
In the case of newly laid concrete it is important that the concrete has been laid for a minimum of 28 days before considering applying a coating. The moisture content of the concrete should be below 4% by weight. The release of the surplus water is dependent on the thickness of the concrete, the season, the temperature and relative humidity of the environment and the prevailing ventilation conditions. Due to the above we advise that the moisture content of the concrete should always be measured and checked. The moisture content of the concrete surface can be measured by an instrument called a protimeter. An indication in the red area means that the concrete is still too wet. An indication in the yellow area means be careful. A concrete of approx. 4 m² should be covered by a plastic sheet for 24 hours after which the measurement has to be repeated. The main problem with new concrete floors is the weak top surface layer known as laitance. This water rich top layer forms during the drying out period and is mechanically weak. In addition to the poor mechanical properties, the laitance has a chemical composition different from the rest of the concrete. Concrete floors with this laitance are obviously poor substrates to apply coatings. It should therefore be a pre-condition that the laitance be removed prior to the application of any floor coating.

Old Concrete:
The removal of all oils, greases etc., together with the removal of the remains of any failed coating is required to ensure that a sound base on which to apply a coating or screed is obtained.

Surface Preparation:
In order to ensure good adhesion and the long-term performance of any floor coating, it is essential that the correct type of surface preparation is carried out. The following are the recognised methods of preparation.

Removal of chemicals from floor surfaces:
The removal of chemicals, oil, grease and fats must be completed before any other preparation work commences such as blasting, acid etching etc. Concrete that has become contaminated by chemicals must be neutralised before coating. If the surface is acidic, it must be neutralized with an alkaline cleaner and rinsed thoroughly with fresh water. If the contamination is alkaline it can be cleaned with detergent and steam. Oil and grease contamination can be removed by a combination of solvents, steam and / or detergents depending on the severity of the contamination.

Abrasive blast cleaning:
Abrasives blast cleaning should always be the first choice for heavy duty flooring systems, if conditions allow. The blast cleaning is normally carried out using an enclosed system such as a Vacu – Blast. Or Auto – Blast type machine. These systems are virtually dust free and work on the principal of propelling small particles of abrasive i.e. steel shot / grit or sand, against the floor surface whilst at the same time vacuum recovering the dust and abrasive to a recovery hopper. In addition to cleaning the floor and removing any laitance, blasting will leave the floor surface with a profile, which will enable the coating to gain a physical as well as chemical adhesion to the substrate. Blast cleaning is the recommended system for large floor areas.

Scarifying:
Scarifying (sometimes known as scrubbling) involves the use of rotating wheels and brushes to scour the concrete surface. The scarifying equipment is pushed over the floor and the enclosed rotating wheels abrade the surface. It is most effective on small areas or areas where abrasive blast cleaning cannot be carried out.

The above information is given to the best of our knowledge based on laboratory test and practical experience. However, as the paint is often used under condition beyond our control, we cannot guarantee anything but the quality of the paint itself. We reserve the right to change the given data without prior notice.