Construction

Case study
Cromer Crab Co.

Flooring

Client: Cromer Crab Company
Specialist Contractor: Grimsby Resin Floors
Products Specified: Sikafloor®-20 N PurCem®

When it came to refurbishing a floor that was part of a busy and much needed food preparation area, specialist seafood producer the Cromer Crab Company needed a surface that was hard wearing, resistant and easily cleaned. To repair the aging concrete floor, a three part system featuring durable and resistant Sikafloor®-20 N PurCem® technology – from Sika, international producer of high quality building products, provided the answer.

Situated in the town of Cromer on the Norfolk coast, the Cromer Crab Company is one of North Norfolk's largest local employers. Producing quality crab products for its own label, it is part of the Seafood Company, a group that owns seven operations across the UK. The hub of its shellfish processing facility, the food preparation area was suffering from badly damaged and deteriorating flooring. As the food prep area was central to the income of the business, not only did the solution need to meet high performance criteria, but it had to be applied quickly so that the facility could return to work as soon as possible.

Sika®

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Specialist contractor Grimsby Resin Floors was called in to repair the floor. It specified a primer of Sikafloor 161 with a screed of Sikafloor®-20 N PurCem®. Sikafloor 161 is an economic, two part epoxy resin with an exceptionally high bond strength that is very moisture tolerant and can cope with concrete moisture contents of up to 6%.

A three part resin rich, polyurethane screed, Sikafloor®-20 N PurCem® is able to bear heavy loads and traffic, highly resistant and easily cleaned. Its high performance qualities have made it the floor screed of choice for difficult applications such as laboratory, chemical plant, freezer and food plant flooring.

Crucially, Sikafloor®-20 N PurCem® is exceptionally fast curing. After only 12 hours of application it can accommodate foot traffic. Such quick curing properties allowed Grimsby Resin Floors to offer the Cromer Crab Company an extremely quick turnaround of the project so that the seafood manufacturers lost as little operation time as possible.

To ready the floor for repair, it was mechanically prepared and cleansed. A layer of Sikafloor 161 was applied to the substrate and left for 24 hours. It was then covered by a trowel applied layer of the Sikafloor®-20 N PurCem®. Though the finish surface of 20N PurCem®was only applied in a depth of 9mm, its strength and mechanical resistance mean that it can withstand the most arduous usage. It was broadcast with quartz for a heavily textured surface, providing the high grade slip resistance that is required for food preparation areas particularly where staff are often working with sharp tools.

Available in a range of colours, Grimsby Resin Floors used three different shades on the floor of the Cromer Crab Company's facility. The various colours were used to mark food preparation, packaging and storage areas to ensure hygienic practice at the facility.

By utilising its expertise and a suitable range of products from Sika, Grimsby Resin Floors was able to ensure rapid completion of the project. Within a few days the facility's floor had transformed from a cracked and failing surface to a high per-formance and long lasting floor with a system that proves consistently popular for food preparation area applications.

Sikafloor® Systems

System Description

Sikafloor®-20 N PurCem® is a three part, resin rich, water dispersed, high strength, smooth trowel grade, coloured polyurethane modified, cement and aggregate screed suitable for floors subject to heavy loading, abrasion and chemical exposure.

It has a textured aggregate surface providing medium to heavy profile slip resistance and is typically installed at 6 to 9 mm thick.

Uses

In areas subject to heavy loading, abrasion and high chemical exposure, to provide a hard wearing surface, such as in:

- Food processing plants, in wet or dry process areas, freezers and coolers, thermal shock areas
- Chemical plants
- Laboratories
- Workshops

Characteristics /Advantages

- Fluid consistency requires less labour to install than conventional heavy duty modified PU trowel grade screeds
- Excellent chemical resistance. Resists a wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Please refer to the Chemical Resistance Chart or consult your local Technical Dept.
- Similar coefficient of thermal expansion to concrete, allowing movement with the substrate through normal thermal cycling. It will perform and retain its physical characteristics through a wide temperature range from -40ºC (-40ºF) up to +120ºC (239ºF)
- Steam cleanable at 9 mm thick
- Bond strength in excess of the tensile strength of concrete. Concrete will fail first
- Non taint, odourless
- VOC free
- High mechanical resistance. Behaves plastically subject to impact. Will deform but will not crack or debond
- Slip resistance. Natural textured surface provides anti-slip traction
- High abrasion resistance resulting from its silica aggregate structure
- Rapid one step application. Normally, no concrete primer or sealer required
- It is possible to apply on to 7 to 10 day old concrete after adequate preparation and with a tensile bond strength in excess of 1.5 MPa (218 psi)
- Sikafloor® - PurCem® screeds (20N) and detailing mortar (29N) can withstand moisture vapor transmission values of 12 lbs/1000 ft2 when tested in accordance with the ASTM F 1869 Anhydrous Calcium Chloride Test Method
- Fast curing will allow foot traffic after twelve hours and full service after two days. Production downtime is cut to an absolute minimum.
- Jointless. Extra expansion joints are not necessary; simply maintain and extend existing expansion joints up through the Sikafloor® -PurCem® flooring system
- Easily maintained

Further Information

Sika Construction has a comprehensive range of flooring systems to meet the requirements of virtually any application. These solutions are backed up by a highly experienced technical team, who offer expert specification advice and support. For project specific technical advice please contact our technical department on 0800 1123863 or alternatively email: technical@uk.sika.com

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