



CHOCKFAST Red vs. Concrete

A Comparison of Physical Properties

Technical Bulletin # 559A

Bulletin Description

In many operating environments, downtime is by far the most expensive cost component facing maintenance and rotating machinery engineers. Often there are only a few days available for a major foundation repair. After removal of cracked or contaminated concrete, Chockfast Red's deep pour capability is the fastest way to reconstruct critical concrete structures.

The overwhelming benefit of CHOCKFAST Red over concrete is its ability to rapidly rebuild and repair concrete structures saving time and money. As show by the data shows below, Chockfast Red will fully cure in 18 to 36 hours saving over twenty days in comparison to traditional concrete reconstruction techniques. In addition, the repaired structure will have greater mechanical strength and will resist corrosive materials to a far greater degree than the original structure.

Physical Properties

| | CHOCKFAST Red | Concrete |
|--|--|--|
| COMPRESSIVE STRENGTH: | 15,250 psi (1,072 kg/cm²) | 3,500 psi (246 kg/cm ²) |
| COMPRESSIVE MODULUS OF ELASTICITY: | 2,000,000 psi (140,600 kg/cm²) | 6,000,000 psi (421,800 kg/cm²) |
| LINEAR SHRINKAGE: | Not Measurable | 0.2% |
| COEFFICIENT OF LINEAR THERMAL EXPANSION: | 11.2 x 10 ⁻⁶ /F° (20.1 x 10 ⁻⁶ /C°) | 5.9 x 10 ⁻⁶ /F° (10.6 x 10 ⁻⁶ /C°) |
| FLEXURAL STRENGTH: | 4,025 psi (283 kg/cm²) | 800 psi (56.2 kg/cm²) |
| FLEXURAL MODULUS OF ELASTICITY: | 2,000,000 psi (140,600 kg/cm²) | |
| TENSILE STRENGTH: | 1,890 psi (133 kg/cm²) | 350 psi (25 kg/cm ²) |
| IZOD IMPACT STRENGTH: | 4.6 in.lbs/in. (0.02 N.m/mm) | |
| ABRASION RESISTANCE: | 5 Times Concrete | |
| FIRE RESISTANCE: | Self Extinguishing | Not combustible |
| SPECIFIC GRAVITY: | 2.06 | 2.4 |
| CURE TIME: | 18 to 36 Hours | 28 Days |
| SHELF LIFE | 2 years | |
| | | |

Reference

For design considerations and application details please request Bulletin No. 642 or contact ITW Polymer Technologies' Engineering Services Department.

Date

10/2006



