

## Precision Grouts for Foundation Systems



# Introduction

## ABOUT US

We are a global supplier of long-lasting polymer solutions for uniquely demanding challenges. Through decades of experience in the petrochemical market, we have gained a deep understanding of our customers’ challenges, and we use our niche application expertise to deliver solutions of the highest quality.

## BRANDS

Our range of proven products and world-renowned brands along with our extensive global distribution means that our customers have access to our high-performance products wherever and whenever they need them.

## CUSTOMER RELATIONS

We work closely with our customers to provide them with value-added solutions, and are committed to continous delivery of outstanding customer experiences through world-class quality and service.

## HEALTH & SAFETY

At ITW Performance Polymers, we strive each and every day to operate responsibly. We are driven by the belief that we must all play a positive part in our shared world, a notion that is deeply rooted in our core values.

Our health, safety and environmental policies fully reflect this idea, and our HSE initiatives ensure best-in-class conditions for our employees, our customers and the environment.

## DISTRIBUTION

Our specialized technical distributors provide regional support during installations of complex grouts and pours. They provide application expertise and ensure optimal installation every time.

# Precision Grouts for Foundation Systems

**Chockfast epoxy grouting systems have been specifically engineered to provide the optimal performance and reliability for use under critically aligned equipment.**

The right grouting system, as part of a well engineered equipment system, can provide years of cost effective, reliable performance.

The “Chockfast System” supports more horsepower than any other system. From thin pour epoxy chocks to large foundation repairs, Chockfast has the properly engineered system for all your critical equipment needs.



## CHOCKFAST RED VERSAFLOW

### Achieve Cost-Effective Installation with Pumpable Epoxy Grout

Chockfast Red Versaflow epoxy grout is engineered for optimum pumping and flow properties. A versatile offering that provides superior delivery and efficient installation. All while maintaining the robust cured properties for which Chockfast grouts are known and relied upon.

- High discharge volume for faster completion
- Ideal for low clearance, large area pours
- Easily overcomes the challenges of difficult to access areas, such as large skid packages, elevated structures, or congested areas.
- Standard kit provides desired results.
- No need to adjust aggregate levels.

### For Precise and Permanent Alignment of all Machinery

- Lowest total cost of ownership
- Excellent vibration damping
- High compressive & bond strengths
- Superior resistance to shrinkage, fretting and shear loads
- Ease of installation
- Chemical resistance
- High surface contact area

### Why choose Chockfast? If you are interested in...

- Increasing equipment and foundation service life
- Lowering equipment operating costs
- Increasing mean running time between failure

**Then the choice for your next installation is Chockfast grout**

# Epoxy Grout Systems for Precise and Permanent Alignment of All Machinery

## Gentle Exothermic Reactions and Low Coefficients of Thermal Expansion

Chockfast grout systems provide all of the advantages necessary for superior performance including fast, convenient installations; precise, reliable alignment; resistance to expansion under hot-running machinery; rapid curing with negligible shrinkage; and maximum versatility for dependable solutions with the most difficult installation problems. There is an ideal epoxy product for each grouting or chocking application.

Chockfast grout systems have earned an unmatched reputation for reliability with major gas pipelines; chemical, petrochemical and refining complexes; power facilities; mining operations; manufacturing; engineering and design organizations; and industrial construction operations worldwide.

### Applications

- Compressors
  - Process Pumps
  - Turbines
  - Engines
  - Generators
  - Blowers
  - Electric Motors
  - Pelletizers
- Fans
  - Coker Drums
  - Separators
  - Fluid Drives
  - Gear Drives
  - Conveyors
  - Cooling Towers



# Which Product is Right for You?

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chockfast Red                             | A 3-component, 100% solids, deep-pour, multi-purpose epoxy grout for fast, permanent alignment of reciprocating equipment. Also used as a polymer concrete for fast reconstruction of worn or damaged foundations. Chockfast Red provides excellent vibration damping for static and dynamic loads, while its gentle exothermic cure allows for single pours from 2" to 18" (51 mm to 457 mm).       |
| Chockfast Red SG                          | A 3-component, 100% solids, enhanced flow, epoxy grout, Chockfast Red SG is used to grout large machinery applications where a lighter consistency material is required and clearances from 1" to 4" (25 mm to 102 mm) are typical.                                                                                                                                                                  |
| Chockfast Red Versaflow                   | A versatile 3-component, 100% solids, epoxy optimized for pumping and flow properties. Capable of low clearance, large area pours. Pump transfer results in high discharge volumes. Hose delivery overcomes challenges of difficult to access areas such as large skid packages, elevated structures, or congested areas. Standard kit provides desired results, no need to adjust aggregate levels. |
| Escoweld® 7505/7530                       | A 3-component, 100% solids, deep pour, epoxy grout; ESCOWELD® 7505/7530 offers many benefits designed to simplify equipment installation while providing excellent chemical resistance and vibration damping for pumps and other critically aligned rotating equipment. Pours from 2" to 18" (51 mm to 457 mm) are typical. ESCOWELD® is available in North America only.                            |
| Chockfast Orange                          | A 2-component, low viscosity, structural epoxy "chock", or "poured shim" with variable hardener ratios options. Replaces tediously fitted steel chocks or shims. Assures intimate contact with machined or un-machined equipment bedplates. Virtually 100% effective bearing underneath supported equipment. Normally poured in thickness' of 1/2" to 4" (12 mm to 100mm)                            |
| Chockfast Black                           | A 2-component, 100% solids, highly flowable, thin pour "chock" or "poured shim"; designed to maintain proper alignment and support of machinery and equipment. Able to withstand severe industrial environments with a high degree of both physical and thermal shock resistance. Normally poured in thicknesses of 1 - 1/4 " to 2 - 1/2" (30 mm to 65 mm).                                          |
| Chockfast Gray                            | A 2-component, highly flowable, thin pour "chock" or "poured shim"; designed to maintain proper alignment and support of machinery and equipment. Able to withstand severe industrial environments with a high degree of both physical and thermal shock resistance. Normally poured in thicknesses of 1 - 1/4" to 2 - 1/2" (30 to 65 mm).                                                           |
| ITW PRC 100 Non-Shrink Cementitious Grout | A precision, non-shrink, cement grout that meets or exceeds all requirements of the Corps of Engineers ASTM C-1107.                                                                                                                                                                                                                                                                                  |

Specifications

| Product                              | Features                                                                                                                                                                                                                                   | Unit Size                                                                          | Typical Pour Depth                                                                                                                                                    | Compressive Strength                                                                                                                 | Compressive Modulus of Elasticity                                                                            | Flexural Strength                                         | Coefficient of Linear Thermal Expansion |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------|
| 3-Component Epoxy Grouts             |                                                                                                                                                                                                                                            |                                                                                    |                                                                                                                                                                       |                                                                                                                                      |                                                                                                              |                                                           |                                         |
| Chockfast Red                        | High strength, 100% solids epoxy grouting compound which is used to grout large machinery and to support soleplates. Ideal for final positioning of critically aligned equipment within close tolerances.                                  | 1.6 ft³ (45.3 L)                                                                   | 2" (5 cm) - 18" (46 cm)                                                                                                                                               | 15,250 psi<br>(1,072 kg/cm²)<br>(105.1 MPa)                                                                                          | 2,000,000 psi<br>(140,600 kg/cm²)<br>(13,790 MPa)                                                            | 4,025 psi<br>(283 kg/cm²)<br>(27.8 MPa)                   | 11.2 x 10 <sup>-6</sup> in/in/°F        |
| Chockfast Red SG                     | Thin Pour, Rapid Cure, High Strength Epoxy Grout.                                                                                                                                                                                          | 1.6 ft³ (45.3 L)                                                                   | 1" (25 mm) - 4" (100 mm)                                                                                                                                              | 18,120 psi<br>(1,274 kg/cm²)<br>(124.9 MPa)                                                                                          | 1,970,000 psi<br>(138,535 kg/cm²)<br>(13,583 MPa)                                                            | 4,800 psi<br>(340 kg/cm²)<br>(102 MPa)                    | 10.8 x 10 <sup>-6</sup> in/in/°F        |
| Chockfast Red Versaflow              | Optimized for pumping and flow properties. This versatile material is capable of low clearance, large area pours and is able to reach difficult to access locations. Pumping results in efficient delivery and lower cost of installation. | 2.2 ft³ (61.7 L)                                                                   | 1" (25 mm) - 4" (100 mm)                                                                                                                                              | 14,100 psi<br>(991 kg/cm²)<br>(97.2 MPa)                                                                                             | 1,600,000 psi<br>(112,491 kg/cm²)<br>(11,032 MPa)                                                            | 5,200 psi<br>(366 kg/cm²)<br>(35.9 MPa)                   | 19.1 x 10 <sup>-6</sup> in/in/°F        |
| Escoweld® 7505E/7530                 | High Strength, Deep Pour, Very Fluid, Epoxy Grout for mounting precisely aligned equipment. Ideal for installing baseplate mounted pumps.                                                                                                  | 2.4 ft³ (68 L)                                                                     | 1.25" (3 cm) - 18" (46 cm)                                                                                                                                            | 14,000 psi<br>(984 kg/cm²)<br>(96.5 MPa)                                                                                             | 1,800,000 psi<br>(126,550 kg/cm²)<br>(12,410 MPa)                                                            | 4,700 psi<br>(329 kg/cm²)<br>32.4 MPa                     | 14.6 x 10 <sup>-6</sup> in/in/°F        |
| 2-Component Epoxy Chocking Compounds |                                                                                                                                                                                                                                            |                                                                                    |                                                                                                                                                                       |                                                                                                                                      |                                                                                                              |                                                           |                                         |
| Shrinkage                            |                                                                                                                                                                                                                                            |                                                                                    |                                                                                                                                                                       |                                                                                                                                      |                                                                                                              |                                                           |                                         |
| Chockfast Orange                     | Marine & Industrial Chocking Compound for Precisely Aligned Equipment with chocks of the same or variable thickness. Smooth flowing, epoxy that can be injected into very narrow areas.                                                    | Small: 120 in³ (1.9 L)<br>Large: 260 in³ (4.3 L)                                   | 1/2" (12 mm) - 2" (50 mm) for steel to concrete.<br>1/2" (12 mm) - 4" (100 mm) for steel to steel.                                                                    | 19,000 psi<br>(1,336 kg/cm²)<br>(131 MPa)                                                                                            | 533,000 psi<br>(37,482 kg/cm²)<br>(3,674.9 MPa)                                                              | 0.0002 in/in<br>(0.0002 mm/mm)<br>or 0.02%                | 17.1 x 10 <sup>-6</sup> in/in/°F        |
| Chockfast Black                      | High Temperature, Industrial Chocking Compound for Precisely Aligned Equipment with chocks of the same thickness. Viscous, gritty epoxy.                                                                                                   | 265 in³ (4.3 L)                                                                    | 1-1/4" (32 mm) - 2-1/2" (62 mm)                                                                                                                                       | 17,300 psi<br>(1,216 kg/cm²)<br>(119.3 MPa)                                                                                          | 800,000 psi<br>(56,246 kg/cm²)<br>(5,515.8 MPa)                                                              | 0.00018 in/in<br>(0.00018 mm/mm)                          | 15.0 x 10 <sup>-6</sup> in/in/°F        |
| Chockfast Gray                       | General Purpose Chocking Compound for installing Non-Precisely Aligned Industrial or Marine Equipment or for installing anchor bolts.                                                                                                      | Small: 187 in³ (3.1 L)<br>Large: 816 in³ (13.4 L)                                  | 1/2" (12 mm) - 2" (50 mm)                                                                                                                                             | 16,000 psi<br>(1,125 kg/cm²)<br>(110.3 MPa)                                                                                          | 520,000 psi<br>(36,568 kg/cm²)<br>(3,585.3 MPa)                                                              | 0.0003 in/in<br>(0.0003 mm/mm)                            | 16.8 x 10 <sup>-6</sup> in/in/°F        |
| Cementitious Grout                   |                                                                                                                                                                                                                                            |                                                                                    |                                                                                                                                                                       |                                                                                                                                      |                                                                                                              |                                                           |                                         |
| ITW PRC 100                          | Non-shrink, precision cement-based grout that can be used in a wide range of consistencies from damp pack to high fluidity.                                                                                                                | Plastic 0.43 ft³ (12.2 L)<br>Flowable 0.44 ft³ (12.5 L)<br>Fluid 0.45 ft³ (12.7 L) | Up to 2" (50 mm) deep. 2" - 5" (50 mm - 127 mm) deep with 25% 3/8" (10 mm) pea gravel by weight.<br>Over 5" (127 mm) deep, use 50% 3/8" (10 mm) pea gravel by weight. | Plastic<br>3 days 5,900<br>7 days 8,900<br>28 days 11,500<br>Flowable<br>5,400<br>7,700<br>8,400<br>Fluid<br>4,800<br>6,200<br>7,700 | 3 days 2.64 x 10 <sup>6</sup> psi<br>7 days 2.79 x 10 <sup>6</sup> psi<br>28 days 3.00 x 10 <sup>6</sup> psi | 3 days 1,055 psi<br>7 days 1,230 psi<br>28 days 1,430 psi | 4.76 x 10 <sup>-6</sup> in/in°F         |

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