MSI Compatible Injected Fill (CIF)

Product Description

MSI Compatible Injected Fill (CIF) is a cementitious injection material designed for the stabilization of internal masonry structures, void filling, crack repair, anchor bonding, seismic retrofit, high wind & flood alterations, and the prevention of unwanted moisture infiltration. CIF is customized to the characteristics of the host structure, making it superior to alternatives, such as epoxy, because of its compatibility to the host. Compatibility is critical, as incompatible injection materials can lead to poor vapor transmission, stress concentrations, and, ultimately, accelerated structural decline. CIF provides an improved bond, low viscosity, sympathetic performance, durability, and breathability. Its cementitious nature also eliminates the concerns over fireproofing often raised with epoxies. Masonry Solutions International's products are always tested by independent laboratory engineers using the highest standards possible.

PERFORMANCE CHARACTERISTICS

Non-shrink design
Maintains integrity of repair, resists cracking

Thermal compatibility
Prevents delamination due to temperature change

Durability
Resists weathering, provides freeze/thaw stability and abrasion resistance

Low viscosity
Excellent flow through cracks and voids

Breathability
Prevents harm to the host structure by promoting proper vapor transmission

Single component
Easily prepared on-site

Proven performance
Utilized in hundreds of major projects around the world

Mix Data & Specifications

Mix Number	Min. Compressive Strength (psi)	Recommended Application	Crack / Void Size
012-964	2500	Very fine cracks, penetration grouting	0.007" to 2" cracks
715-998	4500	Narrow cracks, small voids	.08" cracks to 2" voids
122-452	3000	Large voids, wide cracks, collar joints	1/4" cracks to 10" voids
100-664	1000	Historic masonry: narrow cracks, small voids	.08" cracks to 2" voids
110-210	1100	Historic masonry	1/8" cracks to 4" voids
100-803	1400	Historic masonry	1/4" cracks to 4" voids
072-710	7000	Carbon fiber anchors	Micro-fine; 1/8" ports
508-013	7000	Anchor injection	1/8"+
090-508 A	5000	Enhanced durability - Anchor injection	1/8"+

A selection of base mixes

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Additional Details:

All CIF products available in 40 lb. buckets, 80 lb. bags, or 3000 lb. sacks. Average shelf life 6-12 months depending on storage methods. Keep unopened in a cool, dry area, away from moisture, until ready to inject. For more information on compatible injection materials, such as specific MSDS sheets, please contact Masonry Solutions International's sales department. Completely customized injection materials are available through Masonry Solutions International upon request.

CIF Customization:

Using non-destructive evaluation (NDE) techniques and minimally invasive in-situ testing procedures, MSI laboratory engineers determine the key material characteristics of the host, including compressive strength and vapor transmission. A compatible injection material is then developed, drawing on decades of research and building on a variety of formulations. This CIF is finally tested to verify its performance meets the design criteria.

Injection Guide:

Injection guide for specific mix is included with order delivery. Only trained Compatible Injected Fill technicians should inject Masonry Solutions CIF products. For more details on how to become a trained CIF technician, please contact Masonry Solutions International.

Compatible Injected Fill (CIF):

Compatible Injected Fill, or CIF; a customized, fluid injection material designed to be *fully compatible* with the host wall and meet or exceed project specifications. Stock materials range in compressive strength from 300-7000 psi and are tested rigorously in accordance with a range of standards, including ASTM 1019 Standard Test for the Sampling and Testing of Grout, ASTM C840 Expansion and Bleeding of Freshly Mixed Grouts, ASTM 666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing, and California Shear Test 644 for Shear Strength of Brick Cores.

SAFETY NOTES:

All equipment must be kept in clean and proper operating condition.

Do not use oil or releasing sprays inside mixing and injection equipment as this may contaminate the CIF.

Safety goggles and gloves must be worn at all times when mixing or injecting the CIF.

Please follow all MSI manuals and instructions during injection.

Refer to specific material's injection guide for details.

Dispose of any materials in accordance with all state and federal regulations.

A complete set of safety instructions is available through Masonry Solutions International.