HPZ Crusher Services

Supplying the mining and quarrying industry since 1964

TECHNICAL DATA SHEET

High-Impact Crusher Backing

Product description

This premium, two-component epoxy crusher backing compound is specifically formulated for use in heavy-duty crushing equipment such as cone and gyratory crushers. Designed to withstand extreme forces, it delivers exceptional mechanical performance and structural reinforcement.

Our system exhibits superior compressive strength, outstanding adhesion to metal surfaces, and high impact resistance, even under the most demanding thermal and dynamic loads. The material absorbs vibration and reduces wear on critical crusher components, helping to extend equipment life.

Engineered with a proprietary blend of high-performance epoxy resins and advanced curing agents, this compound allows fast mechanical strength development, enabling quick equipment turnaround and minimal downtime.

Its low-viscosity formulation ensures easy flow into cavities and tight crevices, forming a dense, void-free bond layer. The cured compound resists shrinkage, thermal degradation, and exposure to most industrial chemicals.

Material properties

Cured 5 days at 20°C

Property	Test standard	N/mm²	Approx. psi
Compressive strength	ISO 604 / ASTM D695	135	19,600
Compressive modulus	ASTM D695 / ISO 604	9,200	1,335,000
Tensile strength	ISO 527-3	50	7,250
Tensile modulus	ISO 527-3	4,600	667,000
Flexural strength	ASTM D790	80	11,600
Flexural modulus	ASTM D790	7,900	1,145,000

Key features

Fast cure time

Achieves over 15,200 psi compressive strength within 24 hours and exceeds 19,600 psi at full cure, allowing for early reassembly.

High compressive strength

Withstands pressures above 135 N/mm² (~19,600 psi) at full cure for heavy load-bearing applications.

Low viscosity

Ensures complete penetration and wetting of contact surfaces, eliminating air pockets and maximizing bond integrity.

Non-shrinking and chemically resistant

Maintains dimensional stability and resists degradation from exposure to water, lubricants, oils, and acidic environments.

Strong adhesion

Forms a permanent bond to metallic substrates and aggregates, preventing micro-movement or delamination during service.

Fast return to service

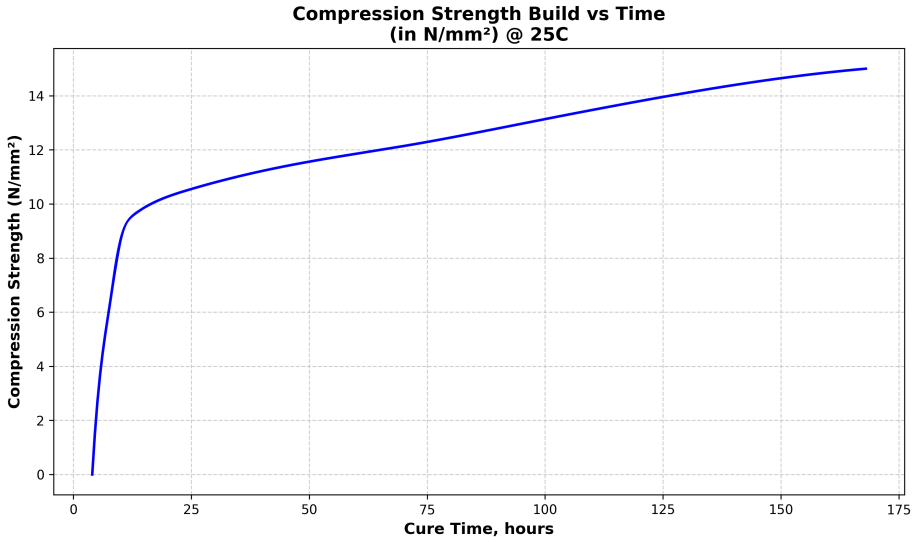
Enables crusher start-up within 24 hours, minimizing production interruption.

Mixing & application

Parameter	Specification
Mix ratio	21:1 by weight (resin to hardener)
Pot life	25 minutes at 25°C
Initial cure	3–6 hours
Functional cure	~24 hours
Full mechanical properties	3–5 days

Preparation

Proper surface preparation (clean, dry, and roughened substrates) and thorough mixing are essential for optimal performance. Always follow all directions and observe all warnings included on the product.



Chemical insight

This system is formulated with a cycloaliphatic amine hardener, known for its high reactivity and moisture tolerance. Reactive diluents reduce viscosity and enhance wetting and crosslinking density, leading to higher mechanical strength and chemical resistance.

Unlike traditional backings, this formulation avoids solvents that can reduce performance or introduce voids, ensuring consistent quality and reliability.

Packaging & storage

Available kit size 15 kg
Shelf life 12 months at 5°C to 25°C in original, unopened containers
Storage conditions Store in a cool, dry place away from direct sunlight and moisture.

Disclaimer / usage notice

The data provided in this Technical Data Sheet (TDS) were generated by HPZ Crusher Services Inc. and/or by independent laboratory testing under controlled conditions. Actual results may vary depending on curing conditions, surface preparation, environmental factors, and load application.

This product is intended for use in crusher assemblies and similar static bearing applications. It is the responsibility of the end user to determine the suitability of this material for their specific application. HPZ Crusher Services Inc. disclaims any liability for misuse or unintended applications.