



WEAR-RESISTANT CERAMICS



Engineered for
Extreme Protection

ADOR WELDING LIMITED (M&R Div.)

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Introduction

CUMITUFF® Wear-Resistant Ceramics from ADOR-CUMI deliver proven protection in abrasion-intensive Cement, Power, Steel and Mining applications. Engineered to resist severe wear, they extend equipment life, cut downtime and ensure reliable, trouble-free operation.

With high-alumina composition, optimized microstructure and precision-fit profiles, CUMITUFF® offers exceptional durability and consistent performance across demanding material-handling environments.

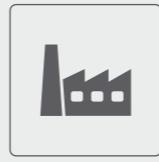
For



CEMENT



STEEL



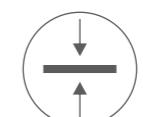
POWER

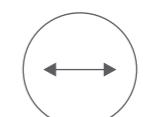


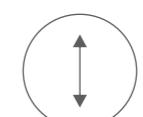
MINING

CUMITUFF® Wear Resistant Ceramics

Offerings

 Thickness (mm)
3 - 60

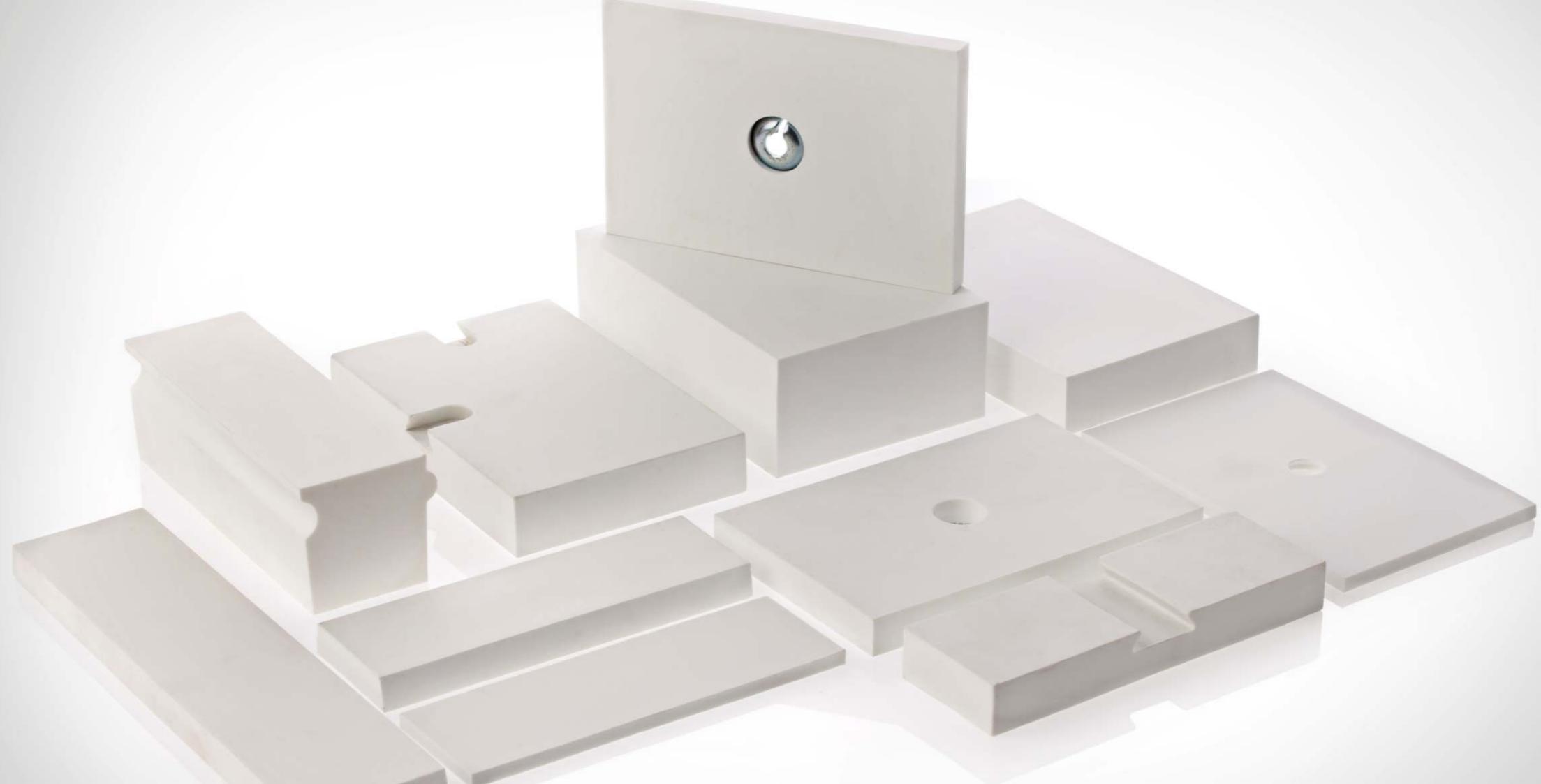
 Width (mm)
25 - 100

 Length (mm)
25 - 190

Custom sizes, panels &
engineered profiles available

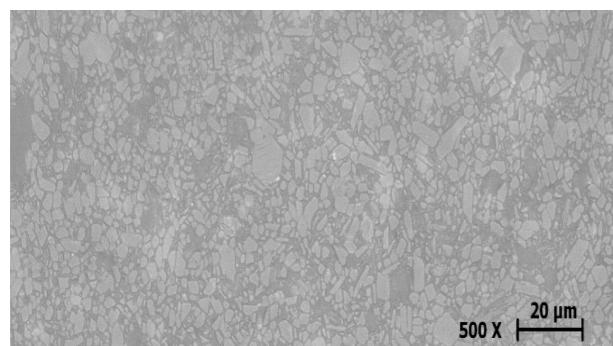
Superior Wear Protection

The adaptable design fits any component—chutes, hoppers, cyclones or pipes. With high hardness, low weight, non-stick performance and superior wear resistance, CUMI Ceramics deliver longer life, minimal downtime and reliable efficiency.



Microstructure

Optimized grain size delivers superior wear resistance. SEM analysis confirms a uniform grain structure across each kiln-fired batch, ensuring consistent performance.



Scanning Electron Microscopy (SEM)
Microstructure

Superior Resistance

Its sapphire-hard, impervious structure delivers exceptional resistance to abrasion, erosion, and corrosion, even in extreme environments.

Zero Water Absorption

The non-porous, smooth surface ensures free flow, even with moisture-bearing materials.

How?

	SLIDING	FRICTION	ABRASION	IMPACT	HEAT	CHEMICAL
CAST BASALT	High	Low Coefficient	15 - 20 times*	Low**	350°C	High
CHEMICAL BONDED CERAMICS	Very High	Low Coefficient	15 - 20 times*	Medium**	1200°C***	High
CUMI CERAMICS	Excellent	Excellent Low coefficient	25 - 30 times*	Medium**	1000°C	High

* In Comparison with Mild Steel: 1 time

*** Depends on the resin

** ANGLE OF INCIDENCE

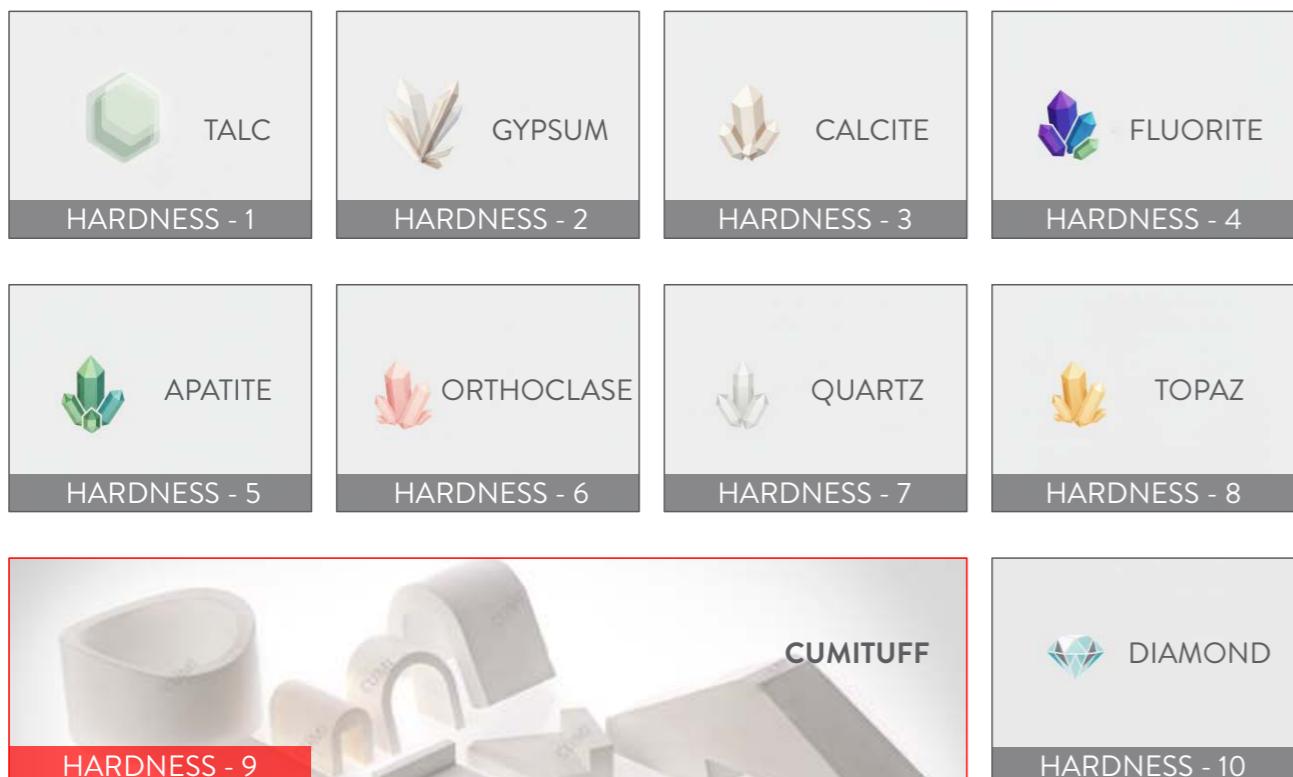
Depends on particle size and fall height of material



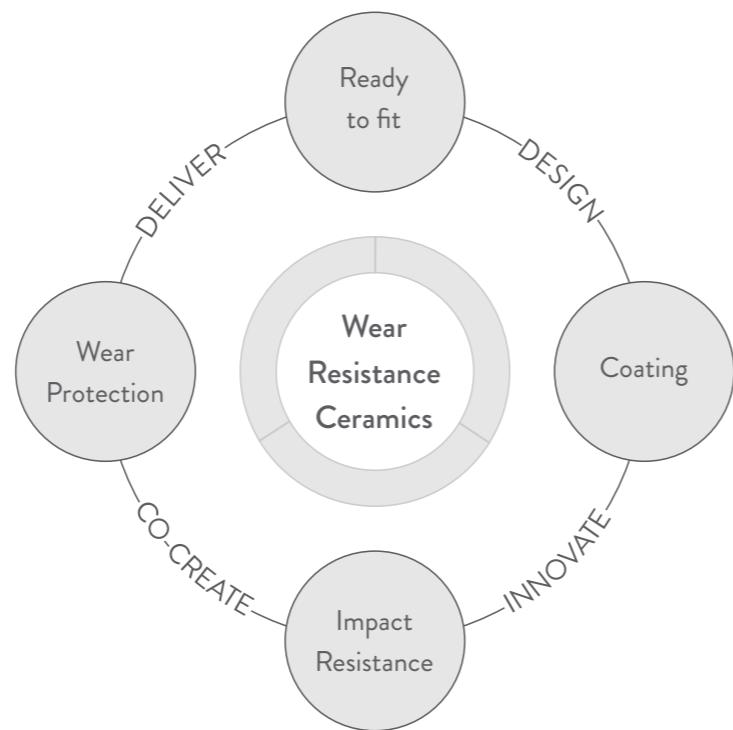
Benchmarking - Wear Life



Exceptional Hardness



Offerings



Properties

PRODUCT	UNIT	CUMITUFF	EXTRATUFF	ULTRATUFF
Density	gm/cc	3.55	3.65	3.72
Color		White	Ivory	White
Rockwell Hardness	R45N	75	77	78
Flexural Strength	Mpa	270	320	360
Compressive Strength	Mpa	1750	1950	2300
Max. Temperature	Deg C	1500	1500	1700
Coefficient of Thermal Exp.	$10^{-6} / ^\circ\text{C}$	8.1	8.1	8.2

Engineered Ceramics

Green-stage pre-formed and contour-matched, they ensure precise ceramic-to-ceramic and ceramic-to-steel fit. Their smoother, thinner, and lighter design enables easier handling, while superior abrasion and corrosion resistance extends service life. Available from 50 NB onward in tiles, panels, screens, grizzly bars, and rubber- or metal-backed options (RBC/MBC).

Applications

- Bends & Pipes
- Cyclones
- Ducts
- Hoppers/Chutes



Impact Pads

Rubber-vulcanized backed tiles absorb impact through natural cushioning, while high-alumina tiles eliminate wear and ensure smooth, friction-free material flow. Installation is easy and reliable through simple bolting.

Applications

- Hoppers/Chutes
- Transfer Chutes
- Wagon Tipplers.





Rubberized Ceramic Mat

Cumituff high-alumina tiles virtually eliminate wear and ensure smooth, snag-free bag flow. The ultra-thin 3 mm design saves volume and space, and in-situ fixing allows installation without bolts or welding.

Applications

- Topagun Chutes.
- Spiral Chutes.
- Straight Chutes.



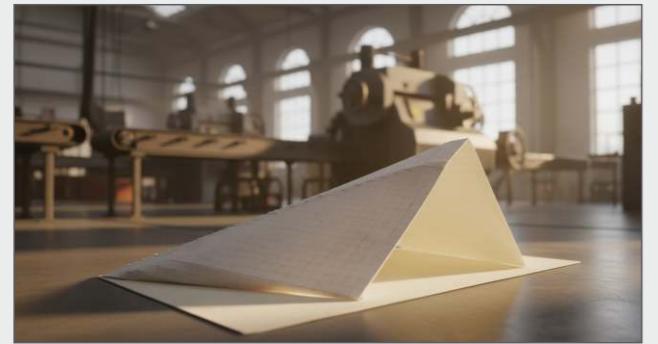
Ceramic Pulley Lagging

A high-traction surface eliminates belt slippage even in wet or muddy conditions, while excellent wear and abrasion resistance ensures long service life. Supplied in 2 m lengths to minimize joints, it can be installed in-situ within 4 hours and features a neoprene layer for superior bonding strength.

Applications

- Conveyor Belt Head.
- Snub & Bend Pulleys.





Mosaic Mat

Quick to install and downtime-reducing, it matches application profiles and contours regardless of shape. It resists abrasion, improves flow even at high material momentum and extends burner pipe life. Available in 1.5–8 mm thickness with square, round, or hexagonal tiles.



Cumi Strap

A fast, flexible patching solution for holed pipes, it is easy to install, retrofit, and requires minimal downtime. Available in 170 × 170 mm (single buckle) and 250 × 340 mm (double buckle), with customizable sizes as needed.





ADORM&R

RECLAIM, DON'T REPLACE!

The world's mineral resources are finite, yet rapid industrialization is depleting them at an alarming pace. Reclaiming and recycling vital machinery components is no longer an option—it's a priority. Our company is committed to conserving mineral reserves while minimizing downtime through sustainable reclamation solutions.

Our Life-Enhancement Services facility in Nagpur is equipped to handle customer-specific and heavy-duty reclamation jobs. With state-of-the-art welding and metal spray processes, we repair, reclaim, and rebuild critical machinery parts for thermal power plants, cement, mining, steel, and other core industries.

Reclamation
Services



MANUFACTURE



REPAIR



REFURBISHMENT



SERVICES



For further inquiries or to discuss custom solutions tailored to your industry needs, please contact our team of experts. EnduraPlate is committed to delivering excellence and powering the future of durability.

Ador Welding Limited - M&R Div. (Erstwhile Ador Fontech Ltd.)

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