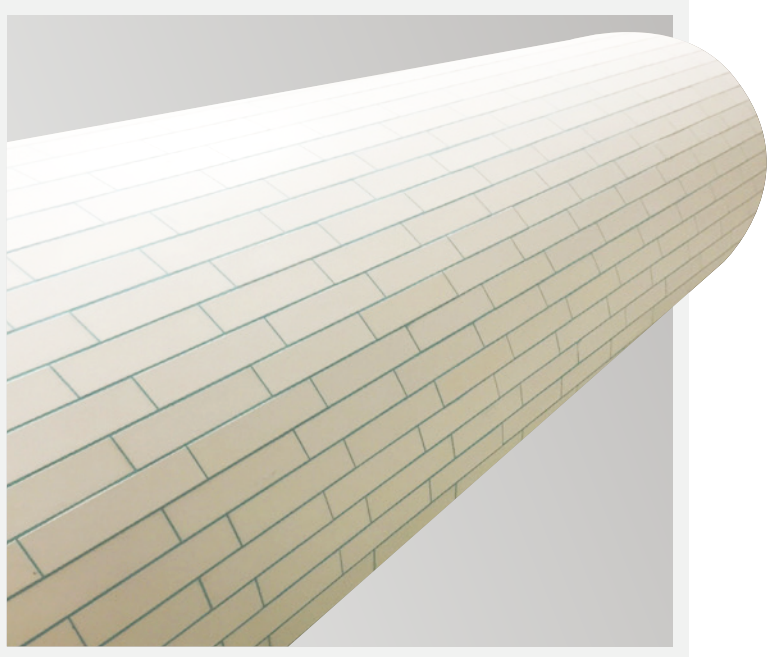




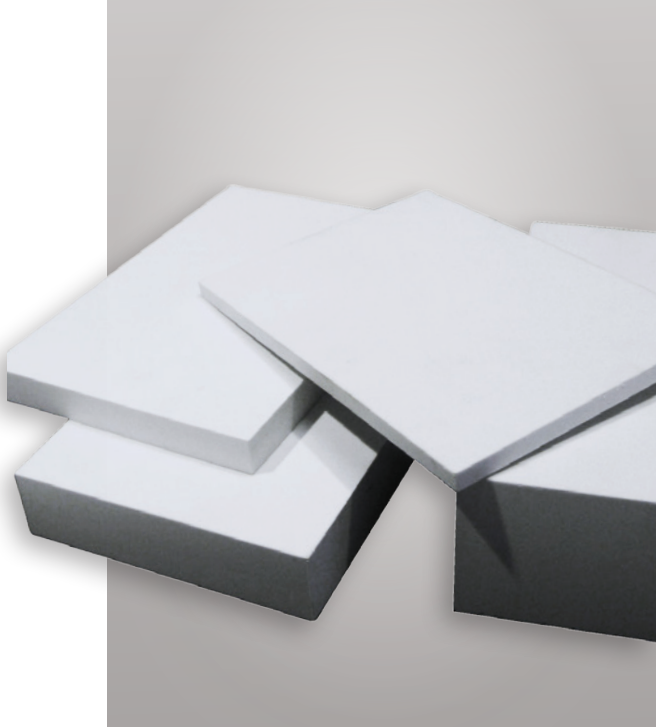
APPLICATIONS

- ▶ Pre-engineered ceramics
- ▶ Monolithics
- ▶ Ceramic lagging
- ▶ Mini cyclones
- ▶ Bushes

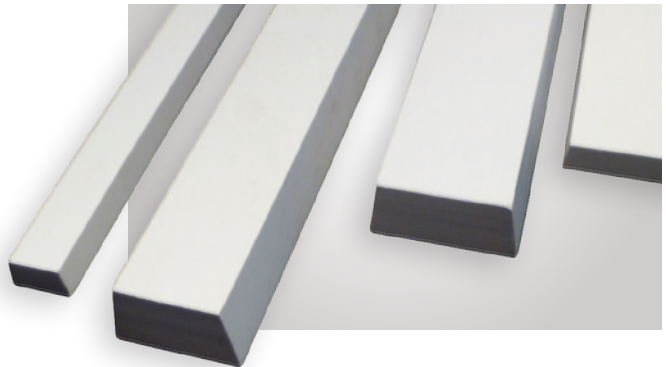


ENGINEERED CERAMICS

CERAMIC SOLUTIONS THAT MAKE A DIFFERENCE



A GLOBAL LEADER IN ENGINEERED CERAMICS



THE CUMI ADVANTAGE

CUMITUFF ceramics are manufactured from **high purity, fine grain alpha aluminium oxide**, isostatically pressed to provide an impervious and extremely dense material with **diamond like hardness**. CUMITUFF ceramics have proven to be a **cost effective long term solution** in preventing abrasive wear in conveying, bulk material handling and piping applications.

Certified	ISO-9001 and ISO-14001
Technology	State-of-the-art manufacturing facility
Quality	Superior products and solutions
Economy	Cost effective, buying direct from the manufacturer
Reputation	Leading global supplier
Support	Solutions based provider who can ensure the right materials for your wear or corrosion application. CUMI provides engineering, design and installation support
R&D Facility	Our diligent product development team offer efficiency and custom manufacturing to enhance your development projects per your specifications

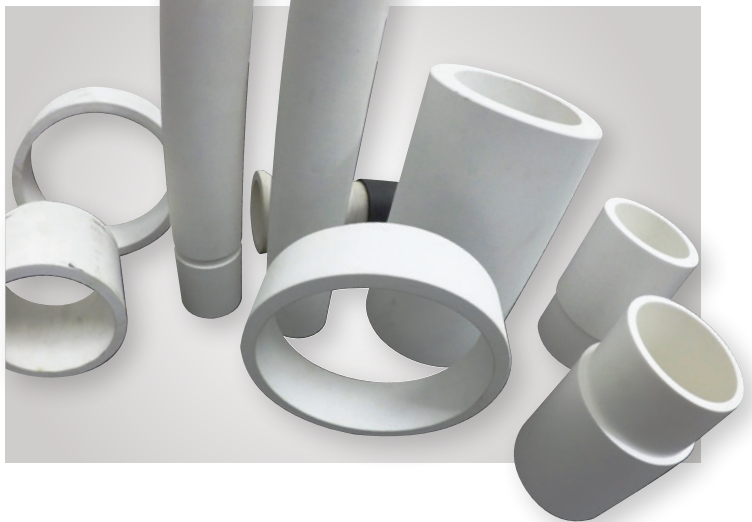
CUMI (Australia), a subsidiary of Carborundum Universal Limited – a company under the multi-billion dollar Murugappa Group and **a global leader in engineered ceramics**.

CUMI (Australia) has grown to be one of the largest suppliers of wear resistant alumina ceramics in the Australasian region, offering our customers **the highest quality products** developed and manufactured in our in-house state-of-the-art ISO 9001 certified facility in Southern India.

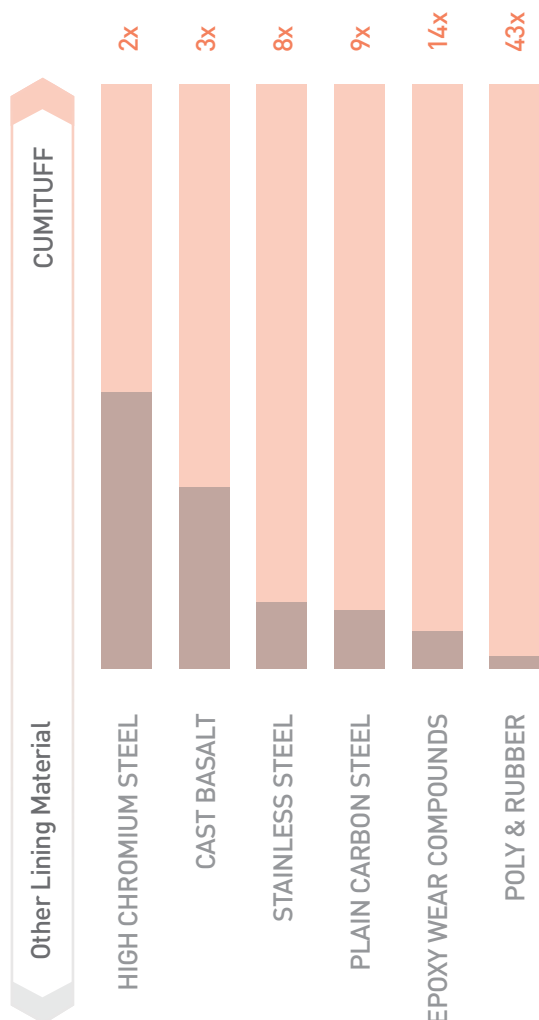
We hold an **extensive range of plain tiles** and side-angled (pipe) tiles, these are available on an ex-stock basis from our branches Australia wide. Our range includes tile thicknesses from 1.5mm to 50mm to suit most applications and pipe diameters.



COMPOSITION	UNITS	TEST (ATSM)	CUMITUFF	CUMI-XTRATUFF
DENSITY	gm/cc	C373-88 (2006)	3.6	3.68
COLOUR	-	-	White	Ivory
WATER ABSORPTION	%	C373-88 (2006)	0	0
ELASTIC MODULUS	GPa	C1198-08	275	300
FLEXURAL STRENGTH	MPa	C1161-02c (2008)	270	320
COMPRESSIVE STRENGTH	MPa	C1424-04	1750	1950
FRACTURE TOUGHNESS	MPa.m ^{0.5}	C1421-01b (2007)	(3-4)	(4-5)
VICKERS HARDNESS	R45N (GPa,1000g)	C1327-03	75 (11.8)	77 (12.5)
MOHS HARDNESS	Mohs Scale	Ordinal Scale	9	9
THERMAL SHOCK (TC)	°C	C1525-04	250	250
PRIME CHARACTERISTIC			Excellent Wear Resistance	Superior Wear Resistance



DIAMOND-LIKE HARDNESS



MAXIMUM INTEGRITY

CUMITUFF pre-engineered linings are **custom made ceramic liners** with no gaps between tiles through the full thickness of the set of liners.

Designed using 3D Modelling a good fit is achieved following the geometry of components, where standard tiles cannot form a lining of sound integrity.

Our **highly-experienced technical team** can evaluate your application for a pre-engineered solution to optimise lining life even for complex equipment profiles.

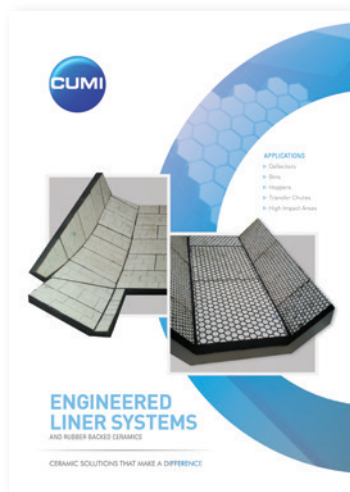


CUMI® CERAMICS

COMPARISON

FORMULATIONS	SALIENT PROPERTY	PRODUCTS
CUMITUFF 90	Excellent wear and abrasion resistant properties	Standard and pre-engineered ceramic, lined equipment, rubber backed ceramics, sleeves
CUMI-XTRATUFF	Superior wear and abrasion resistant properties	Wear resistant linings, ceramic wear plates, lined equipment
CUMI-XTREME	Superior wear, abrasion and thermal shock resistant properties	Wear resistant linings, ceramic wear plates, lined equipment
CUMI-CSP 92	Excellent corrosion and wear resistant properties	Wear resistant linings, lined equipment, sleeves
CUMTUFF 94	Excellent di-electric strength	Metallized cylinders and devices
CUMITUFF 95	Excellent corrosion resistant properties	Igniters, seals
CUMITUFF 98	Excellent for ballistic protection	Armor for ballistic protection
CUMITUFF 995	Excellent corrosion resistant properties and excellent for ballistic protection	Armor for ballistic protection, mechanical seals and sleeves
CUMITUFF 998	Excellent heat and corrosion resistant properties	Ferrules, furnace parts
CUMI-ZIRTUFF YPSZ	Excellent impact, wear and corrosion resistant properties	Bushes, battery tooling

CUMITUFF WEAR LIMITING PRODUCTS



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NEWCASTLE - PERTH - ROCKHAMPTON

SALES OFFICES

TOWNSVILLE - KALGOORLIE - MACKAY - JAKARTA



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