



CUMI

REFRACTORIES FOR CEMENT INDUSTRY



CARBORUNDUM UNIVERSAL LIMITED

SUPER REFRACTORIES

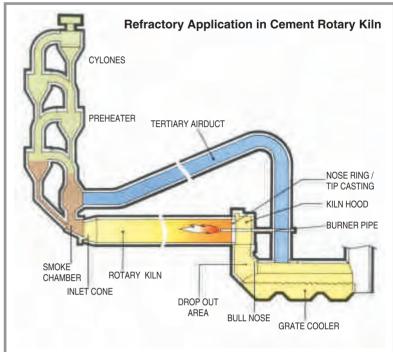
Application of Refractories in Cement Industry

With the advent of larger, more energy efficient cement plants, the rotary kiln and allied machinery are required to withstand longer periods of continuous operation. This requires different types of refractories that must suit the operating conditions in the different zones, in order to achieve balanced service life for the entire kiln.

CUMI has a variety of products to meet the requirements of cement plants. CUMI also has the ability and experience to offer all technical services related to design and installation of refractories.







APPLICATION AREA	CRITICAL APPLICATION CONDITION	RECOMMENDED PRODUCT
Cyclone	High turbulence High erosion in roof and side walls	CUMICRETE CK14, CUMIHICAST SUPER
Preheater	Flash firing High localised temperature High abrasion	CUMICRETE CK14, CUMIHICAST SUPER, CUMICRETE M70
Ducts & Conical sections	High abrasion & erosion	CUMIHICAST SUPER CUMIHICAST 70AR, CUMIHICAST 90AR, CUMICAST EF 804
Kiln Hood	High abrasion	CUMIHICAST EXTRA, CUMIHICAST SUPER
Tertiary Air Duct Damper	High abrasion & erosion	CUMIHICAST 70AR
Smoke Chamber	High abrasion & erosion Attack by alkalies from limestone and bauxite	CUMIHICAST 30 SiC, CUMIHICAST 33 SiC
Inlet Cone	High abrasion & erosion	CUMICRETE CK14, CUMIHICAST EXTRA, CUMIHICAST SUPER
Nose Ring / Tip Casting	Severe abrasion & erosion Impact of clinker Coating	CUMIHICAST 33 SiC, CUMIHICAST 90, CUMIHICAST 60A, CUMIHICAST EXTRA
Burner Pipe	High radiation High Impact loading High expansion	CUMIHICAST 33 SiC, CUMIHICAST 60A, CUMICAST EF 804
Drop out area	High abrasion Thermal shock	CUMIHICAST EXTRA
Bull Nose	High abrasion Thermal shock	CUMIHICAST 60A, CUMIHICAST EXTRA
Grate Cooler	Impact loading Thermal spalling	CUMIHICAST EXTRA, CUMIHICAST SUPER



Headquartered in Chennai, the Rs. 15,646 crores (USD 3 billion) Murugappa Group is one of India's leading business conglomerates. Market leaders in diverse areas of business including Engineering, Abrasives, Finance, General Insurance, Cycles, Sugar, Farm Inputs, Fertilizers, Plantations, Bioproducts and Nutraceuticals, its 29 companies have manufacturing facilities spread across 13 states in India.

The organization fosters an environment of professionalism and has a workforce of over 32,000 employees. The Group has forged strong joint venture alliances with leading international companies like DBS Bank, Mitsui Sumitomo, Cargill, Foskor and Groupe Chimique Tunisien, and has consolidated its status as one of the fastest growing diversified business houses in India.



CUMI is one of the flagship companies of the Murugappa Group. The company pioneered the manufacture of Abrasives and Super Refractories in India and has made forays into other areas of material science such as Industrial Ceramics, Ceramic Fibre, etc.

CUMI is the largest Abrasives manufacturer in India and one of the largest producers of Silicon Carbide and Bonded Abrasives in the World.

The Company has major manufacturing units in India, Russia, China and South Africa and has operations in nine countries including Australia, Canada, Middle East, US and Thailand.



Quality Management System Certified



Making Materials Work for Man



CUMIs Worldwide Network At Your Service

■ Head Office

Carborundum Universal Limited 105, Sreela Terrace III Floor, Western Side, Gandhi Nagar I Main Road, Adyar, Chennai – 600020 Phone: +91 44 42187812/13/14/15 E-mail: rajankn@cumi.murugappa.com

■ Plants

Carborundum Universal Limited Plot Nos. 102 & 103, SIPCOT Industrial Complex, Phase II, Ranipet – 632403 Phone: +91 4172 244197 / 244582 / 244951 / 645625 Fax: +91 4172 255396

Carborundum Universal Limited Mungileri Village, Vinnampalli Post, Katpadi Taluk Vellore District – 632516 Phone: +91 4172 244197 / 244582 / 244951 / 645625 Fax: +91 4172 244982 Email: cumiceramicsranipet@cumi.murugappa.com

Carborundum Universal Limited

Plot No.48-51, Adhartal Industrial Estate, PO Jabalpur - 482004, Madhya Pradesh Phone: +91 761 2680759, Fax: +91 761 2680678

JSC Volzhsky Abrasive Works Volzhsky,Volgograd Region, Road 6, 18 Russia 404130 E - mail: export@vabz.ru

■ Marketing Offices – India

Ahmedabad

No 303, Mahalaya Near Hotel President Off. C.G.Road, Near Municipal Market Navranpura, Ahmedabad Phone: +91 79 26422501

Shrachi Tower, Unit - 1A, 1st Floor, PO Kasba, Kolkata-700 107 Phone: +91 33 24436461 / 62 / 63

P.B. No. 962, United India Bldg. III Floor, Sir Pherozshah Mehta Road, Mumbai – 400001 Phone: +91 22 22663894/ 1360

New Delhi

New Defini 1/33, Flat No. 203, Gangaram Hospital Marg, Rajinder Nagar, New Delhi – 110060 Phone: +91 11 25726908

Secunderabad

1st Floor, Sri Venkat Reddy Complex, Block-1 No.1. Tarbund Cross Road Phone: +91 40 27894889/ 4132

Global Associates

Italy

Enrico LUGLI Agenzia di Vendita s.n.c. Via Giovanni XXIII 38, 16132 GENOVA-ITALY Phone: + 010 522 00 11, Fax: + 010 522 09 22 E-mail: lugli.snc@tin.it

South Korea

Hanse Refractories & Minerals Ltd. Rayong – 21140 A06-6, Baikbong, Cheonbuk, Pyongteak, Kyunggi, Republic of Korea, Phone: + 82 31 6830636, Fax: + 82 31 6830639 E-mail: hanseref@hanseref.co.kr

Subsidiaries

Australia

CUMI (Australia) Pty Ltd. 99-105 Lott Street, Carrington, NSW 2294, Australia Phone: + 61 02 4940 0035, Fax: + 61 02 4940 0037 E-mail: usk@cumi.com.au

Canada

CUMI Canada Inc., 149, Industrial Crescent, Summerside, PE, CIN 5PB Phone: +902 436 9500

F-mail: harikumars@cumi.murugappa.com

China

Carborundum Universal Limited, Beijing Representative Office, Unit no. 21B- Tower no.1 Dong road, Chaoyang dist., Beijing 100028 P.R. China Phone / Fax : + 00 86-10-84513157 E-mail : TiwariPraveen@cumi.murugappa.com

Europe

Carborundum Universal Limited Korfakker 46 a, 5625 SP Eindhoven, Netherlands Phone: 0031 (0)40 842711, Fax: 0031 (0)40 842711, PH/Fax: 0031 (0)40 8427211

E-mail: DeshpandeSandeep@cumi.murugappa.com

Russia JSC Volzhsky Abrasive Works Volzhsky, Volgograd Region, Road 6, 18 Russia 404130 E-mail: export@vabz.ru

South Africa

Foskor Zirconia (Proprietary) Limited Poskor Zirconia (Propretary) Limited 27 Selati Road, Phalaborwa, Limpopo Province, 1390, South Africa Te I. Number: +27 15 789 2346 Fax Number: +27 15 789 2463 E-mail: zirc@foskor.co.za

Thailand

Wendt Grinding Technologies Ltd Thailand Phone: 66 (0)38-955490 (Dir), 955491-2,

Fax : 66 (0)38-955493 E-mail : praveen@wendt-thai.com

USA

CUMI America Inc. 3940 Olympic Blvd, Ste 400, Erlanger, KY 41042 USA Phone: + 1 859 372 6606, Fax:+ 1 859 372 6607 E-mail: cumiusa@aol.com

West Asia & Africa CUMI Middle East Fze P.O. Box 10559, Rak Free Trade Zone, Ras Al Khaimah, UAE Phone: + 971 07 2046181, Fax: + 971 07 2046182

For more information please visit us at: www.cumiceramics.com

> Registered Office: "Parry House", 6th Floor, 43, Moore Street, Chennai - 600001, Phone: +91 44 42216789 www.cumi-murugappa.com

JUNE 2009