



Carborundum Universal Limited Industrial Ceramics Division





Industrial Ceramics Division



- **Started in the year 1991**
- **Technology collaboration with Coorstek, USA**
- **Manufacture of High Alumina Technical Ceramics for Industrial Applications**
- **State of the art manufacturing for Wear Resistant Liners**
- **Current Installed capacity is 8000 MT per annum**
- **Established supplier to cement, coal, mining, steel and power sector OEM's across the world**
- **Automation & Six Sigma Process Control**
- **TPM & TQM**
- **In House Application Engineering & Design**
- **ISO, EMS & OSHAS Certified**

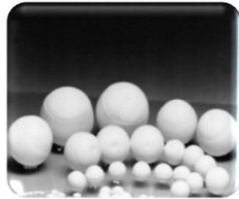




Industrial Ceramics – Products & Application



Wear Ceramics



Grinding Media



Wear Resistant Liners



Ceramic Lined Equipment

Applications

- Bulk Material Handling
- Ceramic Tile/Mineral Processing
- Coal Based Thermal Power
- Mining
- Cement
- Steel

Technical Ceramics



Engineered Ceramics



Metallized Ceramics



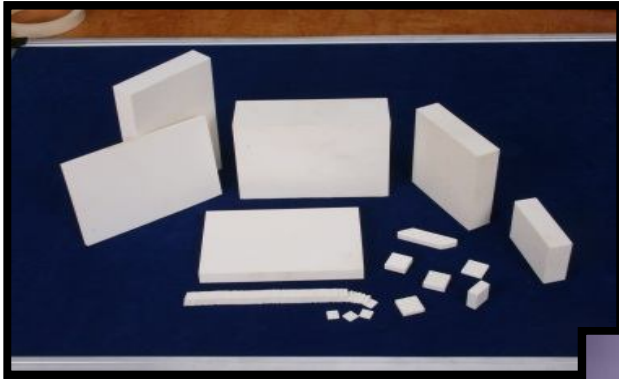
Applications

- Fluid Handling
- Battery Tooling
- Ignition System
- Ballistic Protection
- Vacuum Interrupters
- X Ray Tubes
- Night Vision Cameras
- Communication Devices

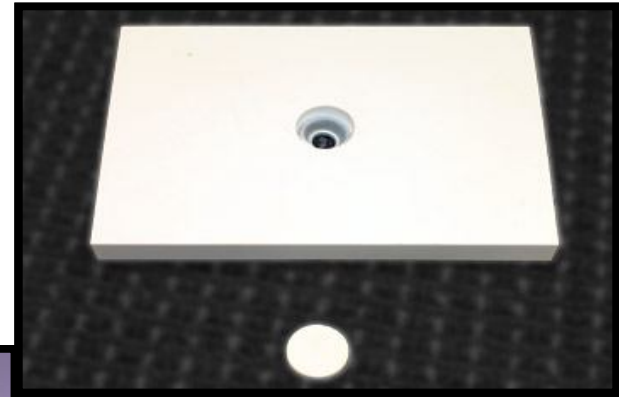




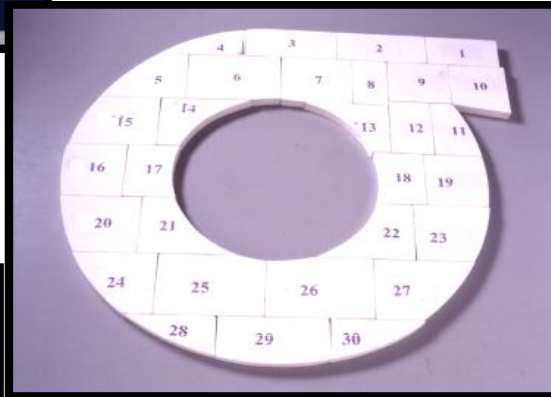
Wear Resistant Liners



Pastable Tiles



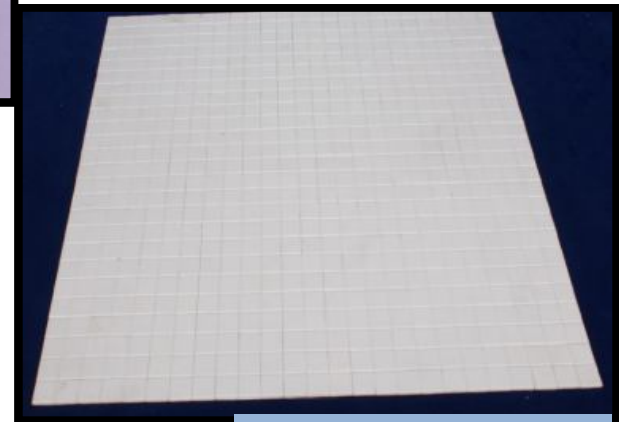
Weld able Tiles



Pre Engg Tiles



Rubber Back Ceramic



Mosaic Mat





Industries Served

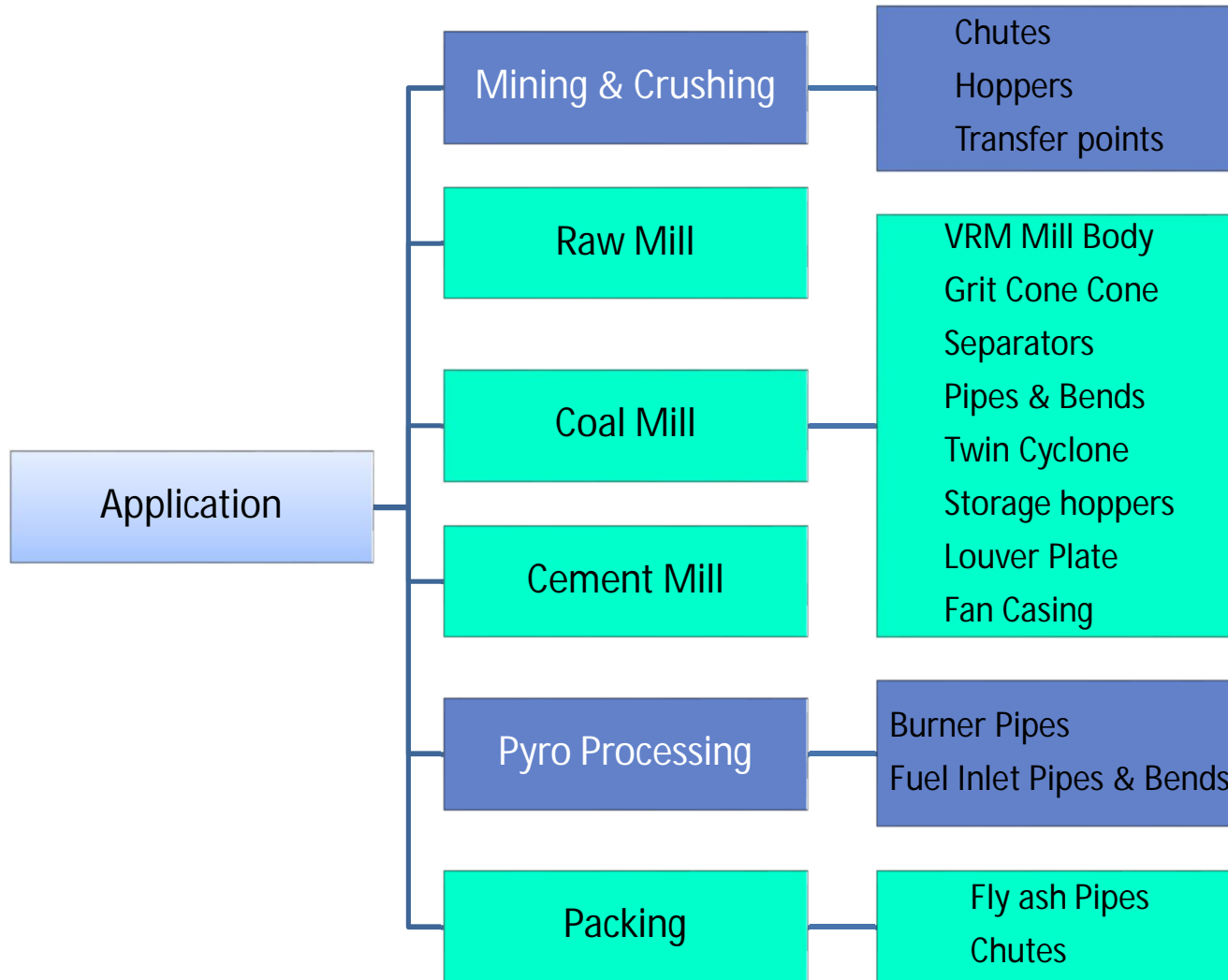


- CEMENT INDUSTRY
- STEEL INDUSTRY
- COAL WASHERIES
- COAL BASED POWER GENERATION
- POWER DISTRIBUTION
- BALLISTIC PROTECTION (DEFENSE)
- CERAMIC TILE INDUSTRY
- OIL AND GAS BASED BURNERS
- MINERAL PROCESSING
- TEXTILE INDUSTRY
- FLUID HANDLING EQUIPMENT
- CHEMICAL INDUSTRY
- PAPER AND PULP INDUSTRY



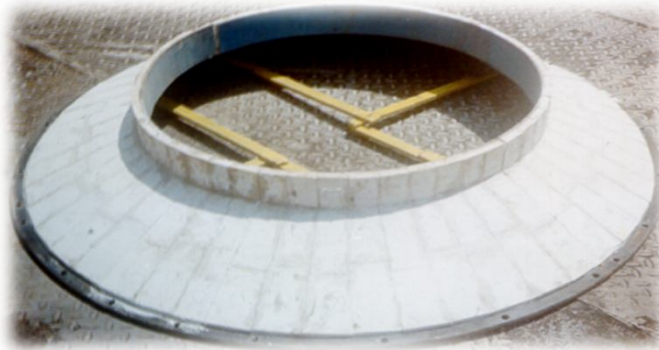


Cement Application Areas





Ceramic Lined Areas – Mill Body



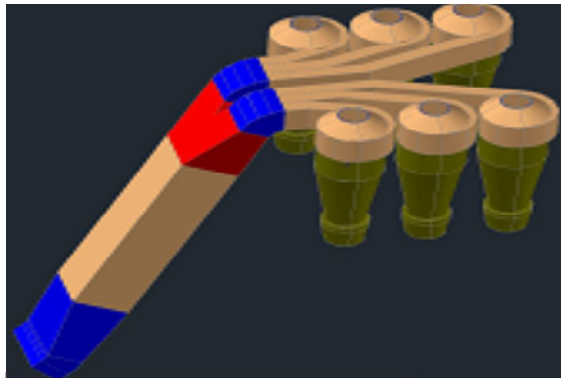
Wear cover



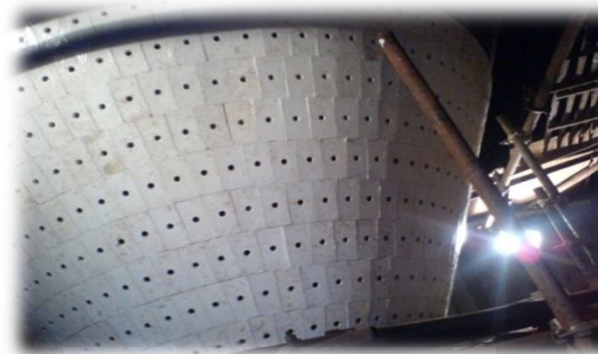
Mill body



Louver blade



Mill outlet duct



GRIT Cone

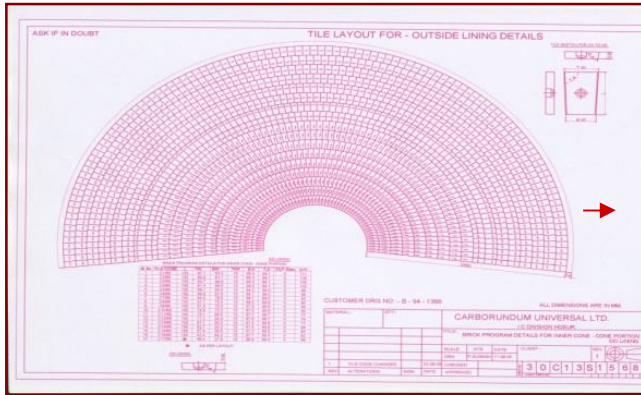


Coal Fuel Pipe





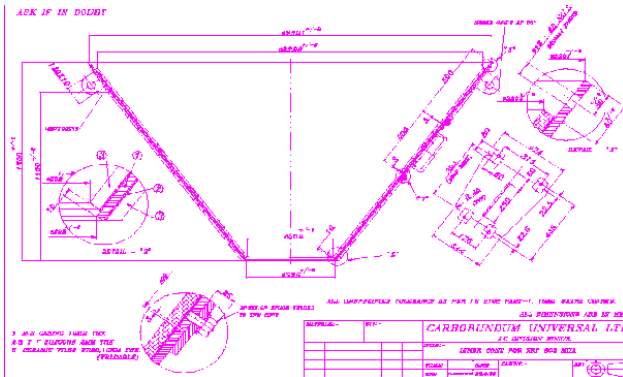
GRIT CONE



Development



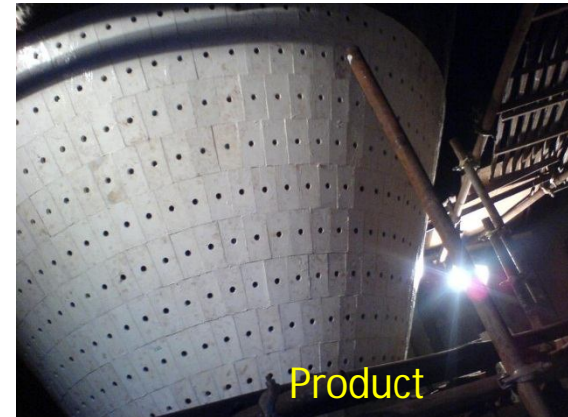
Ceramic Layout



Design



Cone



Product





Grit cone for Raw mill & cement mill



Life with ceramic :- 30 to 36 months (CUMITUFF 13 to 15 mm Weldable tiles)





Cement – Global Partners



- Sales \$ 1.5 million approx. in last 3 years to Loesche.
- 25 Indian projects uses CUMITUFF liners in Loesche mills
- Loesche's export project : Thailand, Qatar Cement, Takoradi – Ghana, Russia, UAE, Korea, Malaysia





Advantage of Ceramic lined Cone



- ✓ Easy to install
- ✓ Smooth surface finish and uniform density of the tiles across the section
- ✓ Better life compared to the conventional liners
 - ❖ Min life of ceramics 30 months
 - ❖ Max life of ceramics 48 months
- ✓ OEM recommended wear protection for VRM
- ✓ No / Less maintenance cost which means
 - ❖ Better cost saving
 - ❖ Low down time
 - ❖ Higher efficiency of mill
- ✓ Easy to replace and repair





Installer Details.



Sl.no	Name	Experience
1	Devadas	23
2	Kishore Kumar	10
3	Pradeep	11
4	Mano	10
5	Basavareddy	22
6	Ganesh Samanth(Sup)	3.5

Installation - CEMENT PLANT
ACC Cement – Grit cone, Inner cone, mill body with 25 thk tiles
Ultratech cemco hirmi - grit cone
Ultratech Cemco TADAPATRI - Grit cone, Topogun chute
Ultratech Cemco RAJULA - Grit cone, Topogun chute
ZUARI CEMENTS - Grit cone
DLF CEMENTS - Grit cone
ACC KYMORE - Grit cone, Inner cone, mill body with 25 thk
MADRAS CEMENTS - BULL RING SEGMENT, burner
BINANI CEMENTS - Grit cone, Inner cone, mill body with 25
MAIHAR CEMENTS - Grit cone, Inner cone, mill body with
Torrero Cements – Grit cone
Lafarge Surma (Bangladesh) - Grit cone, Inner cone, mill body
Lafarge cement(Tata Nagar) – Grit Cone
Barathi Cement – Grit cone
Sonar bangla cement – Cyclone, Separtor
Chettinad Cement – Topogun chute
Grasim Industries – Fan casing





PO Reference



Print Date: 30-Oct-2012 05:43:00F
Print Time: 15:24:27
Page: 1 of 6

Order Number, Date: 12256074 GP 30-oct-2012
Amendment Number, Date: 30-oct-2012
Quotation Reference:
Quotation Date:

PURCHASE ORDER

Supplier Code: 60010575
Shipped From: CARDORUNDUM UNIVERSAL LIMITED
INDUSTRIAL CERAMICS DIVISION
PLOT NO 47
SIPOOT INDUSTRIAL COMPLEX
HOSUR 535 126
TN

Ship To Address: LAFARGE INDIA PVT. LTD-JOJOBBERA CEMENT

Phone Number: +91 9786779771
Contact Person: MR. PALANIAPPAN
Email Id: palaniappan@cumi.murugappa.com

Printed By: AGI/WND1

Currency Code: INR

Comments

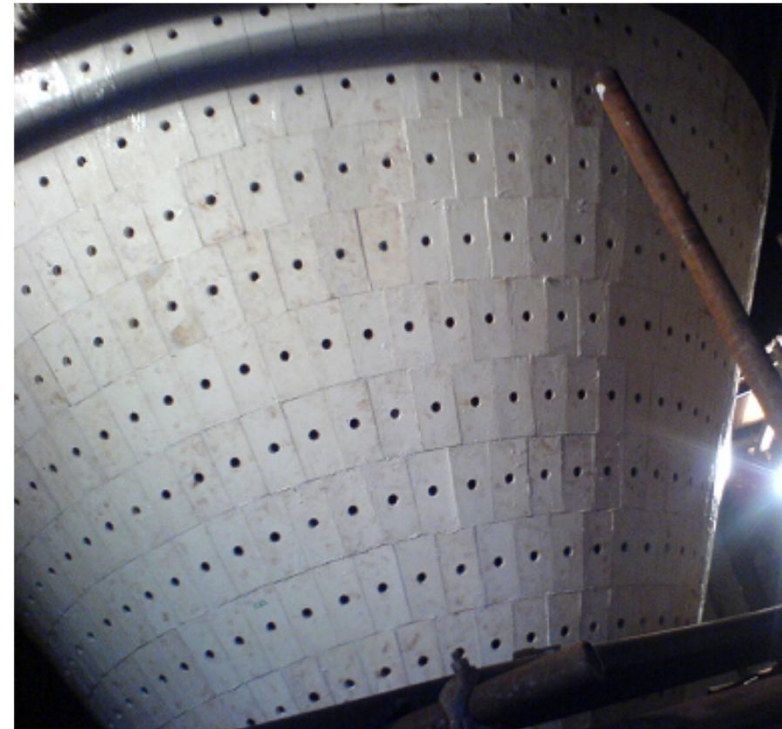
Item Number	Description	Line No	Rev	Quantity Ordered	UOM Description	Unit Price	Extended Price	Delivery Date
500201A26	CUMITUFF 60 CERAMIC TILES 13MM THICK FOR VRM							

GRIT CONE WITH BINDER RTV

Against this Line Item you will supply CUMITUFF60 Ceramic 13 mm thick Pre-Frags Tile suitable for (ID) VRM Grit Cone (Ref: Your Dwg. No. JCR/EXP/MMA-025 Rev. 0) including installation & Supply of RTV as Binder (Area considered 27.66 Sqmts)

LAFARGE INDIA PVT. LTD.

Signature



GRIT Cone

Cement Plant :- Lafarge





Job Completion Certificate



Strength. Performance. Passion.

JOB COMPLETION CERTIFICATE

30/11/13

Subject: High Alumina (CUMUTUFF 90) Ceramic Installation/ Supervision

This is to certify that WENDT GRINDING TECHNOLOGIES LIMITED (THAILAND) Mr. Selvaraj N. reached Siam City Cement Public Co., Ltd. – Thailand. The ceramic installation for VRM No. 2 Grit Cone started 26/11/2013, ceramic linings completed on 30/11/2013. Total completed lining area is 72 sqm. in a Raw Mill. We would like to thank you for your great services also coordination and support for completing this subject with the satisfaction of our team. We are looking forward to increase the applications of ceramic for other areas of the plant and we would like to use your good services in the near future.

Thank you

Mr. Pavornvit Srisahaburi

Mechanical In-Charge



GRIT Cone

Cement Plant :- SIAM Thailand





Loesche Mill – With CUMI Ceramics



Customer Name	Consignee / City	Prod. Grp	Item Description	Qty.
LOESCHE INDIA PRIVATE LIMITED	OCL INDIA LTD.	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (32.1 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.083004-00-2 FOR LSXS 92	1.00
LOESCHE INDIA PRIVATE LIMITED	Ultratech Cement	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (32.1 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.083004-00-2 FOR LSXS 92	1.00
LOESCHE INDIA PRIVATE LIMITED	MADRAS CEMENTS LTD	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (32.1 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.083004-00-2 FOR LSXS 92	1.00
LOESCHE INDIA PRIVATE LIMITED	GRASIM INDUSTRIES LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (28.2 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.074168-00-2 FOR LSXS 87	2.00
LOESCHE INDIA PRIVATE LIMITED	ADITYA CEMENT UNIT II	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (28.2 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.074168-00-2 FOR LSXS 87	2.00
LOESCHE INDIA PRIVATE LIMITED	ULTRATECH CEMENT LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (28.2 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.074168-00-2 FOR LSXS 87	3.00
LOESCHE INDIA PRIVATE LIMITED	ULTRATECH CEMENT LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (28.2 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.074168-00-2 FOR LSXS 87	1.00
LOESCHE INDIA PRIVATE LIMITED	JSW CEMENT LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (18.2 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.037387-00-2 FOR LSXS 66	1.00
LOESCHE INDIA PRIVATE LIMITED	OCL INDIA LTD.	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (4.42 SQM/SET) INCL. STEEL FERRULE BINDER (RTV733) AS PER OUR DRG. NO. 30C13S1837	1.00
LOESCHE INDIA PRIVATE LIMITED	OCL INDIA LTD.,	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (4.42 SQM/SET) INCL. STEEL FERRULE BINDER (RTV733) AS PER OUR DRG. NO. 30C13S1837	1.00





Loesche Mill – With CUMI Ceramics



Customer Name	Consignee / City	Prod. Grp	Item Description	Qty.
LOESCHE INDIA PRIVATE LIMITED	OCL INDIA LTD.	WRL	CUMITUFF 13MM THK CERAMIC PRE-ENGG. WELDABLE TILES (0.65 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER(RTV733) AS PER CUST. DRG. NO.046832-00-1	0.65
LOESCHE INDIA PRIVATE LIMITED	OCL INDIA LTD.,	WRL	CUMITUFF 13MM THK CERAMIC PRE-ENGG. WELDABLE TILES (0.65 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER(RTV733) AS PER CUST. DRG. NO.046832-00-1	0.65
LOESCHE INDIA PRIVATE LIMITED	JINDAL STEEL & POWER LTD	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG WELDABLE TILES (18.2 SQM/SET) INCL. STEEL FERRULE, CAP & BINDER (RTV733) AS PER DRG. NO.037387-00-2 FOR LSKS 66	1.00
LOESCHE INDIA PRIVATE LIMITED	CHETTINAD CEMENT CORPORATION LTD	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (32.1 SQM/SET) INCL. STEEL, FERRULE, CERAMIC CAP & BINDER-RTV 733 AS PER OUR DRG. NO. 30C13S2005	1.00
LOESCHE INDIA PRIVATE LIMITED	MY HOME INDUSTRIES LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (28.2 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2004	1.00
LOESCHE INDIA PRIVATE LIMITED	BHARATHI CEMENT CORPORATION LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (38.0 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2010	1.00
LOESCHE INDIA PRIVATE LIMITED	Sonar Bangla Cement	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (8.5 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2003	1.00
LOESCHE INDIA PRIVATE LIMITED	Al Khalij Cement	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (32.1 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2006	1.00
LOESCHE INDIA PRIVATE LIMITED	SHREE JAYAJOTHI CEMENTS LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (22.1 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2008	1.00
LOESCHE INDIA PRIVATE LIMITED	SIAM Cement	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (40 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2073	1.00
LOESCHE INDIA PRIVATE LIMITED	AMBUJA CEMENTS LIMITED	WRL	CUMITUFF CERAMIC 13MM THK PRE-ENGG. WELDABLE TILES (7.9 SQM/SET) INCL. STEEL FERRULE, CERAMIC CAP & BINDER RTV 733 AS PER OUR DRG. NO. 30C13S2069#1	1.00

Many more.....





Major Customers

