Refractory Solution for Ceramic Industry

Making
A Material
Difference

Super Refractories

CARBORUNDUM UNIVERSAL LIMITED

Kiln

Kiln is the heart of any ceramic process, and hence the proper functioning of the equipment is of prime importance. Over the years, there has been a steady increase in technical demands in terms of shorter cycle times. homogeneity of temperature and regulation of atmosphere in the kiln for improvement in product through input. quality and increased fuel efficiency. Refractories play a major part in defining the process efficiencies of a kiln. CUMI's total solutions include innovative, cutting edge products and technical expertise, combined with customer specific application engineering support.

Hanging roof Bricks

Burner Blocks

APPLICATION GUIDELINE FOR KILN LINING	CUMILAG 23	CUMILAG 26 HS / 26	CUMILAG 28	CUMILAG 29 HS / 29	CUMILAG 30	CUMILAG 32	CUMILAG B101	CUMILAG B201	CUMILAG B201 SPL	HEAT 42D / 45	CUMILITE W	CUMILITE WHF	CUMILITE 65A	CUMILITE 65A SPL	CUMILOX 201 HF	CUMILOX 101 SR / HB	PCPF CUMICRETE CA 66	PCPF CUMICAST EF 804	PCPF HICAST 75R	CUMISTAR RESILIENCE
TUNNEL KILN TEMPERATURE 1250 - 1450°C, HOT FACE - HOT ZONE			■	■	■						■	■	■	■						
TUNNEL KILN TEMPERATURE 1250 - 1450°C, OTHER ZONE			■	■	■					■	■		■							
TUNNEL KILN TEMPERATURE 1250 - 1450°C, BACK UP	■	■	■	■																
TUNNEL KILN TEMPERATURE > 1450 - 1700°C, HOT FACE - HOT ZONE					■	■	■	■	■			■			■	■				
TUNNEL KILN TEMPERATURE > 1450 - 1700°C, HOT FACE - OTHER ZONE			■	■	■	■	■	■	■		■	■	■	■						
TUNNEL KILN TEMPERATURE > 1450 - 1700°C, BACK UP	■	■	■	■	■	■														
SHUTTLE KILN TEMPERATURE 1280 - 1450°C, HOT FACE			■	■	■															
SHUTTLE KILN TEMPERATURE 1280 - 1450°C, BACK UP	■	■																		
SHUTTLE KILN TEMPERATURE 1450 - 1650°C, HOT FACE					■	■														
SHUTTLE KILN TEMPERATURE 1450 - 1650°C, BACK UP	■	■	■	■																
SHUTTLE KILN TEMPERATURE 1650 - 1800°C, HOT FACE							■	■	■											
SHUTTLE KILN TEMPERATURE 1650 - 1800°C, BACK UP		■	■	■	■	■														
BURNER BLOCKS (DEPENDING ON OPERATING TEMPERATURE)											■	■			■	■	■	■	■	
BURNER TUBE, SANITARYWARE																				■

Insulation Firebricks for temperature upto 1850°C

Burner tubes

Kiln Car

CUMI offers LTM kiln car design through selection of suitable materials, considering the operating parameters. The advantages of using LTM kiln cars are

- Greater ware recovery
- Improved product uniformity
- Lower under car temperatures
- Less product temperature exiting the kiln
- Fuel savings
- Increased production
- Reduced power requirements for kiln car moving machinery

Refractories for Kiln Car

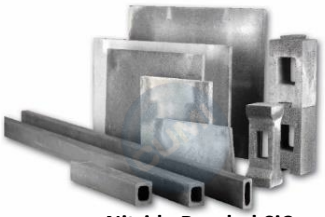
APPLICATION GUIDELINE FOR KILN CAR	CUMILAG 23	CUMILAG 26 HS / 26	CUMILAG 28	CUMILAG 29 HS / 29	CUMILAG 30	CUMILAG 32	CUMILAG B101	CUMILAG B201	HEAT 42D / 45	CUMILITE W	CUMILITE WHF	CUMILITE HF	PCPF CUMICAST EF 501	PCPF CUMICAST EF 804	PCPF CUMICRETE CK 15	PCPF CUMI HICAST 75R	PCPF CUMI HICAST 50
KILN CAR																	
LTM - PERIMETER BLOCKS 1100-1300 °C													■		■		
LTM - INNERSIDE 1100-1300 °C	■	■	■	■													
LTM CAR TOP (DEPENDING ON TEMPERATURE & LOAD) 1100-1300 °C																	■
DENSE CAR - UPPER LAYER (DEPENDING ON TEMPERATURE)										■	■	■			■		
DENSE CAR - BOTTOM LAYER (DEPENDING ON TEMPERATURE & LOAD)	■	■	■	■	■	■	■	■	■								

Kiln Furniture

Kiln furniture has a critical and measurable effect on overall performance of a kiln's firing process and its operating cost. Basic requirement of kiln furniture refractories are refractoriness, good thermal shock resistance, hot strength and long service life. Modern kiln furniture design. requirements include:

- Low thermal mass
- Flexibility in terms of variable deck height
- CUMI's kiln furniture system is tailor made to suit customers application

Thin NBSiC Kiln Furniture



Nitride Bonded SiC

Silicon Carbide

Mullite - High Alumina

APPLICATION GUIDELINE FOR KILN FURNITURE	CUMILITE W	CUMILITE HF	CUMILITE WHF	CUMILITE 76C	CUMILITE 90 HF	CUMILITE 90 C	CUMILOX 90 TCM	CUMILOX M	CUMILITE 65 A / A SPL	CUMILOX 101 HF / HB	CUMILOX 201 HF	CUMIREX	CUMIREX SUPER	CUMIFRAC A24	CUMIFRAC SPL	CUMISTAR ReSilieNce
TEMPERATURE <1300°C, SANITARYWARE, POTTERY								■	■			■	■	■	■	■
TEMPERATURE <1300°C, INSULATOR												■	■	■	■	■
TEMPERATURE <1300°C, ABRASIVE	■											■	■	■	■	■
TEMPERATURE 1300 - 1450°C	■			■				■	■			■	■	■	■	■
TEMPERATURE >1450 - 1650°C	■	■	■	■	■	■	■									
TEMPERATURE >1650 - 1800°C			■		■	■	■			■	■					