

Ceraline® Abrasion Resistant Ceramic Liners

JSPL is an industrial powerhouse with a dominant presence in steel, power, mining and infrastructure sectors.

Part of the US \$ 18 billion OP Jindal Group this young, agile and responsive company is constantly expanding its capabilities to fuel its fairy tale journey that has seen it grow to a US \$ 3.3 billion business conglomerate. The company has committed investments exceeding US \$ 30 billion in the future and has several business initiatives running simultaneously across continents.

THEJO supplied 1000 Sq mtrs of Ceraline 510x510x8 mm in 2011. These items were utilised at various application areas that were problematic due to wet abrasion.

Screen Discharge Chutes

At each of these Screen Discharge areas, JSPL were facing severe material choking and excessive abrasive wear problems with the existing lining system installed by them.

Thejo were called in to resolve this problem, based on experience and quality product line.

Standard products from the Ceraline range, of size 510x510x8 mm, with plain ceramic tiles were offered to the client as the solution. These tiles were applied by cold bonding them to the walls of the chute using Thejo TPR1400 primer, and TC310 cold vulcanising cement with HC hardener compound.

Ceramic

Tile specifications are listed below ..

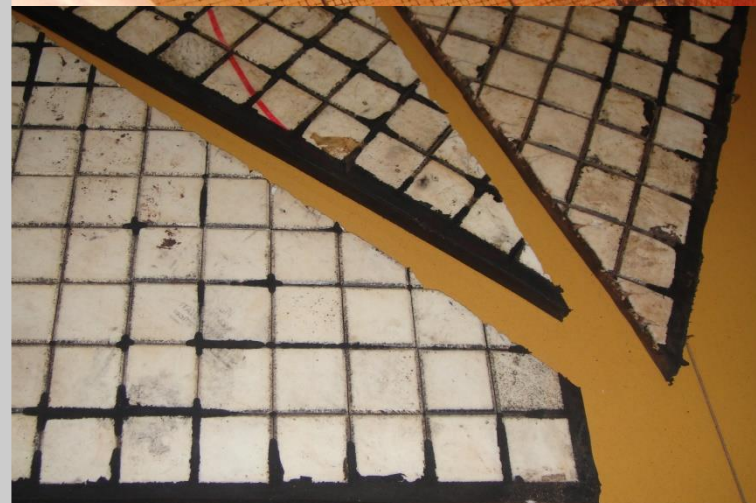
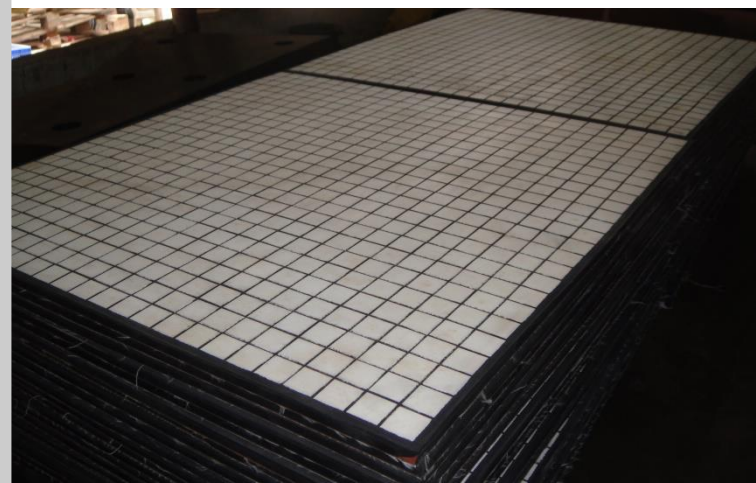
- Alumina Content : 92%
- Tile Size : 20x20 mm
- Thickness : 4 mm
- Tile type : Plain profile

The Ceraline lining system was installed during the period of June–July of 2011.

The client could witness improvement in the process at their Screen under chute, Launderers and Pump Boxes. Ceraline installation resulted in eliminating the problem of wear and material jamming within a few days of installation completion. These equipment were handling iron ore of -10mm size & occasionally event upto -30mm.

Total tonnage handled was recorded as 6 million Ton, i.e 228 Ton/Hr material handling.

Based on the success of this installation Ceraline may be recommended instead of other grades of wet abrasion resistant sheeting for customers.



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Economics:

Equipment	Tonnage	Cost/hr	Location
Screen 1	250 TPH	0.38Rs/hr	Undersize chute Sliding walls
Screen 2	250 TPH	0.38Rs/hr	Undersize chute Sliding walls
Screen 3	250 TPH	0.38Rs/hr	Undersize chute Sliding walls

Note:

- The Ceraline liners were installed on the Under size chutes of Screens which were handling wet iron ore of -20mm size and tonnage of 250 TPH.
- Ceraline liners have given an effective life of 3 years.
- This tantamount to an approximate running cost/hr of 0.38 Rupees per hour.

APPLICATION

Ceraline is recommended for use in areas subject to abrasion from heavy and wet materials. Some of the typical areas of application are :-

- Mill Discharge Chutes
- Pump Boxes
- Sumps
- Launderers
- Hydro cyclone Under pans
- Slurry Piping
- Screen Discharge Chutes
- Feed Chutes
- Thickeners
- Slurry tanks

