

APPLICATION REPORT
OF
SPIRAL CHUTE COATING



AT
ACC CEMENT BARMANA,
HIMACHAL PRADESH

INTRODUCTION:-

CEMENT MANUFACTURING PROCESS PHASES:-

Production of cement completes after passing of raw materials from the following six phases. These are:

- * Raw material extraction/ Quarry
- * Grinding, Proportioning and Blending
- * Pre-heater Phase
- * Kiln Phase
- * Cooling and Final Grinding
- * Packing & Shipping

SPIRAL CHUTE CONVEYOR (PACKING & SHIPPING):-

Material handling involves the movement of material, manually or mechanically in batches or one item at a time within the plant. The movement may be horizontal, vertical or combination of horizontal or vertical. Material handling is concerned with motion, time, quantity and space.

Spiral chute are used for handling cement bags for loading in dispatch. Spiral chutes provide gentle handling of products that are more prone to damage while conveying.



PROBLEM:-

- * Tear of bags.
- * Jamming of bags.
- * Loss of cement.
- * Delay in dispatch
- * Generation of dust due to pouring of CEMENT.

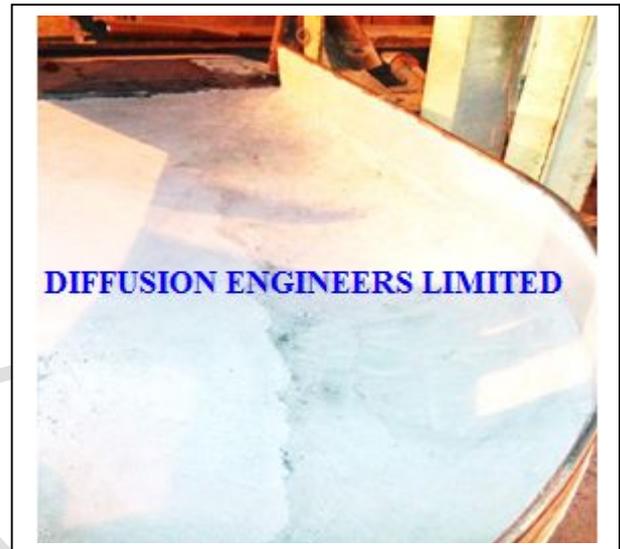


FIG. TEAR AND JAMMING OF BAGS

PRODUCT RECOMMENDATION:-

* **DIFF EZ Slide-1:-**

It is a strong polymeric bonding system penetrates the prepared base surface and form strong adhesive bond with DIFF EZ Slide-2, DIFF EZ Slide-3.

* **DIFF EZ Slide-2:-**

It is a main composite matrix that absorbs the energy of sliding bag and ceramic matrix withstand abrasive wear. Product is toughened composite to take impact and sliding abrasive which is not found with other abrasive resistant hard ceramic material. The EZ Slide-2 also enhances the passage of bag in comparison to elastomeric coating. Thickness achieved of EZ Slide-2 is 2mm thick.

* **Diff EZ Slide-3:-**

It is design to give the support to EZSlide-2 while application & settlement of product. In due course of time DIFF EZ Slide- 3 is exposed which take care of all performance property. Thickness of EZ Slide-3 is maximum 300 micron.

APPLICATION PROCEDURE:-

A. SURFACE PREPARATION :-

- * Before application of any kind of coating surface preparation is must to activate the base metal so that coating will have better bonding.
- * The surface preparation is done by Grit Blasting.



FIG. SURFACE PREPARATION DONE BY GRIT BLASTING

B. PRIMING:-

After surface preparation priming is done by DIFF EZ Slide-1.



FIG. APPLICATION OF DIFF EZ Slide-1

C. COATING:-

To give resistance against abrasion in Spiral Chute coating is done by DIFF EZ Slide-2



FIG. APPLICATION OF DIFF EZ Slide-2

D. COATING:-

Top coat of DIFF EZ Slide-3 is apply to give anti stick property.



FIG. APPLICATION OF DIFF EZ Slide-3

For any kind of patch work keep DIFF EZ SLIDE-3 in stock for easy & quick repair.

ACKNOWLEDGEMENT:-

AREA ENGINEER:

Mr. RAHUL SINGH
Mr. RISHABH GAUR

AGENCY INVOLVED:-

ROYAL ENTERPRISES

APPLICATION TEAM:

Mr. Gautam Maurya

DIFFCOR



DIFFUSION ENGINEERS LIMITED

Regd. Office & Works I : T-5 & 6, M.I.D.C., Hingna Industrial Area, Nagpur - 440 016, Maharashtra, INDIA
[t] 091-7104-232084, 234727 [f] 091-7104-232085.

Works II : N-78 & 79, M.I.D.C., Hingna Industrial Area, Nagpur - 440 016, Maharashtra, INDIA, [t] 091-7104-236036

Works III : T-12, M.I.D.C., Hingna Industrial Area, Nagpur - 440 016, Maharashtra, INDIA, [t] 091-7104-232984

[e] info@diffusionengineers.com, [w] www.diffusionengineers.com

Branches At : Chennai • Faridabad • Jamshedpur • Pune • Raipur • Secunderabad • Vadodara