

## URETECH LINED DIVERSION CHUTE

HMA Uretech UTST-16-21 (16mm thick urethane with 5mm thick backing) was supplied to a Concrete Batching Plant to be used in an area of high wear.

The sheet was cut to size and fitted as a lining on a diversion chute coming off of a conveyor carrying dry mix cement (cement powder and sand mixed with 10 to 14mm aggregate) in to a hopper. The conveyor feeds two hoppers with half the product going to each hopper. There is a flip chute that switches the flow of product from one hopper to the other.

The original chute lining being used was 6mm thick Bisalloy plate which was welded in place.

As a trial, an HMA Uretech lining was fitted on the chute to one hopper and new Bisalloy plates to the second hopper chute to compare the wear life of each product.

### TRIAL RESULTS

Over a 5 month period the plant had to replace 5 Bisalloy plates on the left hand hopper diversion chute the highest area of wear. A lifecycle of the Bisalloy plate in this application is 1 month.

After the 5 month period there were no visible signs of wear on the Uretech sheet fitted to the right hand diversion chute.

Following the trial, the plant fitted an HMA Uretech lining to the left hand also.

After 3 months service the left hand chute has started to show wear via the yellow indication layer of urethane mainly in the high impact area. It seems there is more wear in this area due to the way the product comes of the conveyor creating a higher impact than the opposite side.

Since the yellow indicator layer of urethane is 8mm thick, the plant knows the when it appears, they are halfway through the this lining.

As it has taken 3 months to get to this point, the plant can schedule replacement of the worn section at a convenient time over the next month or two.

If the plant is being cautious and completes the replacement in 1 months time, the service life will be 4 months. This is four times longer than the Bisalloy plate.

The plant is extremely satisfied the HMA Uretech product even though HMA Uretech is approximately twice the price of the Bisalloy sheet the extra life makes its half the cost.



*HMA Uretech sheet fitted to the right hand side hopper.*



*4 x Bisalloy plates fitted to left hand side hopper.*

The plant production is in the order of \$ 20,000 per hour so the reduced number of stops to fit the Bisalloy is also a big saving in lost production. The weight of the HMA Uretech is less so this makes it easier and safer to fit in this especially awkward position which is at height above the hoppers.

No hot work permit is required for welding and grinding which is required with the Bisalloy.



*Left hand chute after three months service.*

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