

Repair of HEMM's Off-Road Tyres

Application by ProCoat Specialities Pvt. Ltd.

ThistleBond

A Division of E. Wood Ltd., U.K.



Problem

The off-road tyres of heavy earth moving machinery like wheel dozers, forklifts, dump trucks of various capacities (35 ton to 175 ton) often faces problem of in-depth cuts, fraying, fragmentation because of bad condition of mine's off-roads. The damage is also caused by rubbing of sharp objects and impact. This ultimately result in side way damage to tyres. If no remedial measures taken, these cuts propagate and leads to tyre failure.

Solution

ProCoat Specialities offer an effective and fast remedial method to repair these side way damages of off-road tyres with their high performance ThistleBond "Elastomers".

Advantages of the Repair Method

- Repair can be done even in In-Situ condition with minimum surface preparation.
- Repair takes not more than 1-2 hours.
- Easier repair method allows to do the repair even in mines area.
- Cold vulcanizing method attains tough, flexible and superior mechanical strength.

Product : 60 Durometer Rapid Paste Elastomer

ThistleBond '60 Durometer Rapid Paste Elastomer' is a 60 Durometer high performance paste grade elastomer which has been specifically developed for repair of rubber components by towel or putty knife and is suitable for repairing damaged / frayed / fragmented off-road rubber tyres in mines, and resurfacing the exposed plies.

PHYSICAL PROPERTIES

Tensile Strength	70 kg/cm ²
ASTM D412	(1000 psi)
Tear Strength	36 kg/cm
ASTM D624	(200 pli)
Elongation	800%
ASTM D412	
Peel Adhesion	9 kg/cm
ASTM D903	(50 pli)
Hardness Shore A	60
ASTM D2240	
Volume Solids	100 %
Usable Life	10 Minutes

Primer

ThistleBond Elastomer Primer is supplied as a two component product comprising 100 gm of primer in a cone topped tin and a small glass bottle of catalyst.

Surface Preparation

Any splits must be rounded out at the end to prevent them extending, this can be carried out by using a sharp knife, care should be taken to ensure that fabric of the tyre is not cut. Loose sections of rubber / frayed or fragmented rubber should be cut away, then all edges of the damaged area should be undercut to give an increased bonding area and a clean surface. Surface should be wiped with 'Cleaner' to ensure any oil or grease present is removed, and area should be allowed to dry before proceeding. Prepared surface should now be primed with ThistleBond elastomer primer. Primer should be applied with a soft bristled brush to give an even, but low coating thickness, taking care to avoid ponding of primer.

Application

'60 Durometer Rapid Paste Elastomer' is to be mixed in 2:1 (Resin : Hardner) ratio until steak free consistency achieved. Mixed material should be pressed firmly in to prepared area ensuring no air entrapment with rebuilding being left slightly proud of the surrounding surface. Surface profile of the repair can then be moulded to match tyre by pressing a piece of flexible plastic or polythene over the surface using hand pressure to trace surface profile. Plastic can be removed when elastomer has been allowed to cure, then surface can be buffed down using a rotary grinding stone.

Distributor catering to your needs



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