

**Plant Maintenance Specialist** 

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Dealing in:

» Wear Resistance » Cold Welding Technology



A company deal with saving concept

# REALTECH EPOXY PUTTY STICK

For Emergency Repair

#### Introduction:

It is a Metallic Filled System which gets cured within 10 minutes after mixing. It is a 100% Solid System which gets cured under high humidity, Even under water and temperature up to 5 Deg. C. It is an excellent, unmatched products for Emergency low cost repair to all under water/Humid condition.

#### Features & Benefit:

- Fast and Emergency repair that can be reduce the downtime.
- Fast Mixing & Easy Application.
- Will Bond to almost all material.
- The System can be used Even Underwater/High humidity, Avoids all relevant problems of hot process.

# **Typical Application:**

Emergency Repair to Elbow, Tank, Cooling Towers, Dam, Pumps, Vessels, Pipes and Many other Emergency application.

# **Technical Specification:**

Compressive Strength : 950 kg/ cm2
Tensile Strength : 550 kg/ cm2
Maximum Operating Temp. : 150° C
Pressure Holding Capacity : 10 to 12 kg/ cm2
Working Time @ 20 Deg. C : 3 to 4 min.
Curing Time @ 20 Deg. C : 7 to 9 min.

#### Available in

Steel / Under Water / Copper / Bronze / Aluminium / Wood / Concrete / Brass



Appliction In Water



Appliction In Oil

#### REALTECH MACHINABLE PRODUCTS

THESE ARE 100 % SOLID, HIGH STRENGTH, SPECIFIC METAL CONTENT MACHINABLE SYSTEM FOR ECONOMICAL AND DEPENDABLE MAINTENANCE AND PERMANENT REPAIR WORKS.

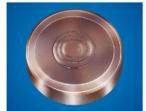
## Salient Features:

- Versatile repair to metal and glass against corrosion.
- Can be machined like metal after curing.
- No twisting, bending, internal stresses as faced in welding.
- Very economical compared to tig welding of Titanium, Aluminium Etc.

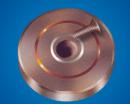
## **Typical Application:**

- Repair corroded areas like Impeller, Casing, Propeller Shafts, Key Ways, Tanks area.
- Repair specialized metal parts like Aluminium, Gunmetal, Titanium etc.
- Cooling System of Vacuum furnaces, Fractured Castings, Prototype parts/patterns, can be repaired/prpared.
- Can be used to repair floating roof of tank and to fill gap between Heat Exchanger Tube sheet and Tube.





Application In Bearing



Thread Repair Application

#### **Physical Properties:**

	Poly Steel	Poly SS/Alu./Bronze	Titanium	Nc Poly Metal
Compressive Strength	750 kg/cm"	750 kg/cm <sup>2</sup>	700 kg/cm <sup>2</sup>	850 kg/cm <sup>2</sup>
Flexural Strength	500 kg/cm <sup>2</sup>	500 kg/cm <sup>2</sup>	550 kg/cm <sup>2</sup>	450 kg/cm <sup>2</sup>
Working Time @30°c	20-30 Min.	20-30 Min.	20-30 Min.	20-30 Min.
Curing Time	3 Hours.	3 to 4 Hours.	3 Hours.	3 to 4 Hours.
Coverage Area	2.5 kg/sqm.	1.8-2.5 kg/sqm.	2.0-2.2 kg/sqm	2.0-2.2 kg/sqm



Application In Shaft

## REALTECH EROSION & CORROSION RESISTANT PRODUCTS

THESE PRODUCTS ARE NON MACHINABLE CERAMIC FILLED FIBRE REINFORCED, ADHERE TO ALMOST ALL SURFACE. SPECIALLY USEFUL WHEN CORROSION AND EROSION IS ENCOUNTERED.

#### Salient Features:

- Versatile to repair any metal in corrosion and acidic area.
- To get optimum result these can used combined with Carbide & Microbead compound also.

# **Typical Application:**

Chemical pump casing, impeller, glass lined vessel's, propeller blade of a ship, acid spill over area, where erosion and corrosion is faced encountered due to acid etc.

Used in place of rubber lining /Teflon lining to get more life, If erosion is encountered.

## **Physical Properties:**

1		Poly Ceramic Compound	Brushable Ceramic Liquid
Compressive Strength	;	950 kg/cm <sup>2</sup>	800 kg/cm <sup>2</sup>
Flexural Strength	:	550 kg/cm <sup>2</sup>	550 kg/cm <sup>2</sup>
Temperature Resistant	:	220° C.	220° C.
Shore Hardness	:	> 90 D	> 90 D
Working Time	:	25-30 Min.	30-40 Min.
Curing Time	:	3-4 Hours.	4 Hours.
Coverage Area	:	6.5 kg/sqm.	1 kg/sqm.
Coating Thickness	:	2-3 mm.	0.5 mm.







# **REALTECH ABRASION RESISTANT PRODUCTS**

## MICROBEAD COMPOUND AND CARBIDE COMPOUND

CERAMIC BALLS SILICON CARBIDE FILLED SOLID SYSTEM TO COMBAT EROSION FROM PARTICLE SIZE OF 3 TO 6 MM TO RESIST HEAVY ABRASION WITH CORROSION IN ANY EQUIPMENT IN THE PLANT.

# Salient Features:

- Hard to mix but easy to apply.
- 100 % solution against abrasion.
- To get optimum result these can be used combined with Poly Ceramic compound, liquid & Fibreglass tape.

# **Typical Application:**

- Contoured centrifuge parts where ceramic lining cannot be applied for handling coal, hopper
- For repair of Centrifuges (screw type), I.D. fans, Pneumatic Conveying elbows, slurry pump casing, Hopper, Chute, Inlet side of the ball mill, cyclone separator, ceramic lined bends eic.



		Carbide Compound	Microbead Compound
Compressive strength	:	900 kg/cm2	900 kg/cm2
Flexural Strength	:	550 kg/cm2	550 kg/cm2
Temperature Resistant		220° C.	220° C.
Working Time	:	30-40 Min.	30-40 Min.
Curing Time	:	3-4 Hours.	3-4 Hours.
Coverage Area	:	13.5 kg/sqm.	13.5 kg/sqm.
Coating Thickness	:	5 mm.	5 mm.







#### REALTECH WEAR RESISTANT PRODUCTS

**HI-TECH** now offers **REALTECH** High Alumina Ceramic Lined equipment for highly wear prone application such as Coal Fired Power Generation, Mining, Cement, Steel, Mineral Processing Industries.

**REALTECH** offers product designed to meet exacting requirement in cost effective manner. The choice of High Alumina Product ensures excellent wear and corrosion resistant properties. Our engineers are available for customer services for application development including Material Selection, Lining design, Fabrication and Installation. Alumina shape, size shall be designed to suit the final application of the equipment. The installation of the liner shall be done by high Alumina based wear resistant bonding material and/or welding.

The Hardness of **REALTECH** is next to Diamond which ensures extremely hard and wear resistant material. It can last longer than any other conventional material to take abuse of bulk material handling. In addition it retain its highly wear resistant properties at high temperature.

**REALTECH** is also inert to all most all chemicals and thus providing excellent corrosion resistant properties against chemicals.

**REALTECH** is cost effective in the long run in various application **MINIMISES** - Down time, Maintenance, Product cost **MAXIMISES** - Productivity, Performance and profit.

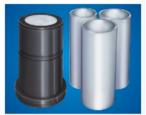
Properties :	REALTECH 90	REALTECH 99
Alumina content	90%	99.5%
Colour	White	Ivory
Density gm/cc	3.60	3.89
Hardness R45N	79	83
Sur face Finish	1.60u	0.9u
Water Absorption	Nil	Nil
Compressive Strength: kg/cm2	2500	2600
Tensile Strength: kg/cm2	220	250
Corrosion Resistant : mg/cm2/day with 95% H2504 @ 20 C	0.03	0.01
Max. Temp.	1500° C	1750° C

#### **Industrial Application:**

- Ball Mill Liner Bins Hoppers Chutes Elbow Classifier
- Cyclone I. D. Fan Mechanical Seals Orifices Ventury Collar
- Nozzles Ash / Slurry Line Component Shaft Sleeves
- Pump Impeller and many more.











P. F. BEND



HYDRO CYCLONE

#### REALBOND TILES ADHESIVE COMPOUND

#### Introduction:

Ceramic is High value item and it is very brittle under impact To bond ceramic with the steel plate normally one use mortar which has very poor bonding strength with the steel plate and concrete. **RealBond** Ceramic Bonding Material is Two Part System which gets polymerized and bond nearly any metal, concrete with the ceramic, glass, wood etc with very high strength.

#### Features & Benefits:

- Ceramic filled and hence have nearly the same property of parent material.
- Superior adhesion to almost all clean surfaces.
- Protection against corrosion, abrasion etc.
- Gets cured in short time and increases the work output.

#### **Physical Properties:**

Alumina Content. : 80% minimum.
Compressive strength : 1500 kg/cm2
Flexural strength : 350 kg/cm2
Tensile shear strength : 170 kg/cm2
Hardness Shore D. : 95D.

 Max. Operating Temp C.
 :
 180 to 200 deg. C

 Working time 30 deg. C.
 :
 30 to 40 minutes.

 Kit Size.
 :
 10 & 30 kgs.

Coverage. : 4 kg/M2 WITH 3MM THK



# REALTECH CERAMIC PULLEY LAGGING

it is constructed from hundreds of individual ceramic tiles molded into a durable rubber backing.

- Extends the life of key conveyor components.
- May allow a reduction in the size of the required drive, take-up, etc.
- Reduces wear from abrasive materials.
- Cost-effectively, prevents belt slippage by increasing the coefficient of friction between the belt and the pulley.
- Creates a self-cleaning action on the pulley surface and prevents the buildup of transported material, water, snow or ice.



The new lagging with ceramic inserts has been designed for use in difficult wet and muddy working conditions, common in gold, copper, iron ore, coal, Lime stones and steelworks, to eliminate belt slippage. The ceramic inserts made of high strength aluminium oxide, ensure extremely high wear resistance.

**REALTECH CERAMIC PULLEY LAGGING** provides twice the traction of conventional rubber lagging and virtually eliminate slippage between conveyor belts and drive pulleys, significantly improved conveyor productivity under even the most severe operating conditions. Employing a special ceramic-in-rubber design.

**REALTECH CERAMIC PULLEY LAGGING** high-grade alumina ceramic tiles -- which cover the pulley face and become its drive surface -- create the highest coefficient of friction available in a lagging material under wet, dry or muddy conditions. Each tile is: "20mm square and surfaced with 13 slightly raised, rounded "buttons" that press into the belt's bottom cover. This proprietary design yields the highest coefficient of friction available in lagging materials -- two to three times higher than rubber.

As a result, Ceramic Rubber enables users to avoid over-tensioning belts in search of better traction, which often leads to such maintenance problems as damaged pulleys, shortened bearing life, failed splices and broken belts.

Ceramic Lagging for Pulley is offered for installation by chemical bonding with tiles molded with a durable backing material, specified as natural rubber. For chemical bonding, the lagging is supplied in standard strips holding rows of tiles. Unlike hot-vulcanized lagging it is easy-to-handle. It is also supplied as per size of Pulley to suit easy installation.

Ceramic-in-rubber pulley lagging continues to excel in applications where additional wear and higher coefficient of friction is required.





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