



AN ISO 9001:2008 AND
18001:2007 CERTIFIED COMPANY



MARUTI
REFRACTORIES
CORROSION CONTROLLER ENGINEERS

PPG Lining Technical details

Why the need of PPG lining arose

In industries the lining were used since decades for the various applications to prevent the structure and to store the chemicals.

Acid resistant Tiles were used to prevent the RCC structure and the most disadvantage of acid resistant lining is that it is very good resistant to acid but it s failure start whenever it is exposed to alkaline medium. In addition to that acid resistance jointing has been done by foreign material and it start failing when the sudden impact pressure of flow comes at the jointing material and it starts leaking and regular maintenance is required for pointing.

And the PPG lining the same material is used for jointing and jointing is done by fusion welding and in addition to that we are providing double welding system followed by spark testing which ensures 100% results.

Chemical Resistance Chart For PPG

Chemical Name	Concentration	Temperature Suitability In Celsius		
Acetic Acid	80% / 93	50% / 93	20% / 104	10% / 104
Acetone	GEN / 104	50% WATER / 27		
Adipic Acid	GEN / 49			
Allyl Alcohol	GEN / 49			
Alum	GEN / 104			
Aluminum Acetate	AQUEOUS SOLUTION OR SOLID / 80			
Aluminum Sulfate	GEN / 94			
Aluminum Chloride	GEN / 94			
Aluminum Hydroxide	SAT / 94	25% / 94	10% / 94	
Aluminum Nitrate	SAT / 95			
Aluminum Sulfate	40% - 10% / 104			
Ammonia	ANHYDROUS / 104			
Benzene	GEN / 60			
Benzyl Alcohol	GEN / 60			
Boric Acid	GEN / 104			
Brine Acid	GEN / 104			
Bromic Acid	GEN / 60			
Butyl Alcohol	GEN / 94	PRIMARY /60	SEC / 60	TERTIARY /82
Calcium Bisulfate	GEN / 100			
Calcium Carbonate	GEN / 100			
Calcium Chloride	GEN / 100			
Calcium Hypochlorite	GEN / 80			
Calcium Hydroxide	GEN / 105			
Calcium Nitrate	GEN / 100			
Carbon Dioxide	GEN / 80			
Calcium Sulfate	GEN / 100			

Carbonic Acid	GEN / 104			
Chlorine Water	SAT / 60			
Chromic Acid	50% / 60	40% / 60	30% / 49	10% / 49
Citric Acid	GEN / 104	10% / 104		
Copper Chloride	GEN / 94			
Copper Nitrate	GEN / 94			
Copper Sulfate	GEN / 94			
Ethyl Acetate	GEN / 60			
Ethyl Alcohol	GEN / 60			
Ethylene Glycol	GEN / 104			
Fatty Acid	GEN / 60			
Ferrous Sulfate	GEN / 100			
Formaldehyde	50% / 94	37% / 94		
Formic Acid	10% - 85% / 94			
Glucose	CORN / 105			
Hydrobromic Acid	50% / 82	20% / 94	DIL / 104	
Hydrochloric Acid (Tech.)	38% / 94	35% / 104	20% / 104	DIL / 104
Hydrofluoric Acid	100% / 82	50% / 94	30% / 94	DIL / 94
Hydrogen Chloride Gas Dry	GEN / 104			
Hydrogen Peroxide	90% / 38	50% / 60	30% / 38	DIL / 38
Hydrogen Sulfide	DRY / 82	WET / 82		
Isopropyl Alcohol	GEN / 94			
Magnesium Chloride	GEN / 94			
Magnesium Hydroxide	GEN / 104			
Magnesium Nitrate	GEN / 104			
Magnesium Sulfate	GEN / 94			
Maleic Acid	GEN / 94			
Methyl Alcohol	GEN / 82			
Molasses	GEN / 104			
Monoethanolamine	GEN / 82			
Nitric Acid	50% / 60	30% / 60	10% / 71	FUMING / NIL
Oxalic Acid	SAT / 60	50% / 71	10% / 71	5% / 71
Phosphoric Acid	85% / 94	50% / 94	10% / 104	
Plating Solution	CHROME/ 82	COPPER/ 94	IRON / 84	ZINC / 94
Salicylic Acid	GEN / 48			
Silver Cyanide	GEN / 94			
Silver Nitrate	GEN / 104			
Sodium Bicarbonate	20% / 104			
Sodium Bisulfate	GEN / 104			
Sodium Fluoride	GEN / 94			
Sodium Hydroxide	70% / 104	50% / 94	30% / 94	
Sodium Hypochlorite	GEN / 49			
Sodium Nitrate	GEN / 94			

Sulfur Dioxide	DRY / 70	WET / 70		
Sulfuric Acid	98% / 49	90% / 71	70% / 82	60 - 10% / 94
Urea	GEN / 94			
Water Salt	GEN / 104			

The above information has been provided with the best of the references available, limited trials conducted and the experience.

Chemicals maintained in the above chart are only which are in regular use. If you have any other chemicals then please ask us for the same.

Comparative analyses of ART (Acid Resistant Tilling) & PPG (Poly Propylene Glass)

Sr. No.	Description	ART Flooring	PPG Flooring
1	Acid Resistant	Excellent	Excellent
2	Jointing Material	Foreign Material	Homogeneous Material (PP/HDPE)
3	Size of One Piece	Tiles Maximum up to 9" X 6"	Sheet of 10M Lengths and 1.5 Widths.
4	No of Joints	Very High	Negligible
5	Acid Resistance of Jointing Material	Unsatisfactory	Same as PP/HDPE. Jointing will be done by PP/HDPE.
6	Abrasion Resistance	Good	OK
7	Bonding with parent surface M.S./RCC	Good	Excellent (In built cohesive strength)
8	Bonding material for parent Surface	Mastic Cement	Unsaturated Polyester Resin
9	Chemical Resistance of Bonding Material	Unsatisfactory	Good
10	Cost	Rs3000 Per Sq. Mt.	Rs1200 Per Sq. Mt.
Maruti Refractories			
11	Top Surface	Rough	Can be available in Rough Surface
12	Stability against UV rays	Not effected	Stable due to its Gray Color
13	Maintenance	Regular Maintenance Required	No maintenance required
14	Expected Life	2-4	10-12 years.
15	Basic Disadvantage	Mastic cement eroded and dilutes the entire purpose of tilling.	Time consuming.

The usage of PPG with inherent strong cohesive property makes the bonding with parent surface near permanent, and homogenous welding process of sheet jointing. For that, we assure you for our claims