

## TECHNICAL DATA SHEET



### RITECRETE® - 440

(High Performance Acrylic Polymer Based Coating System)

(Ref. SIPL / TDS / RITECRETE440 / 0421 / R-02)

### ❖ Product Description

**MYMIX - RITECRETE® 440** is a high performance acrylic polymer based coating system for repairs and waterproofing. It can be utilised as a bonding agent, as a mortar enhancer, as an excellent waterproofing agent and as a primer coating in cementitious application. It can be utilised for waterproofing of underground structures, water bodies, terraces etc. It is suitable for repairs of masonry structures, old concrete to new concrete and in cement plaster. It is in liquid consistency and suitable for internal & external applications

### ❖ Special Features

- High Performance - Increase the qualities of cement mortar and concrete
- Excellent resistant to salt water penetration
- Provides excellent breathable waterproofing coat
- UV resistant, weather resistant, hard wearing, long life and highly durable
- High flexibility and elongation properties
- Resists to mild acids, alkalines, chlorine and sulphates





## ❖ Application

- As a repair mortar for repairing of old and new concrete structures
- As a bonding agent for screed and plaster applications
- As a bonding agent on Gypsum, Cement and Calcium Silicate Boards
- For Waterproofing - Mix with raw cement to form water resistant membrane for various waterproofing application
- For surface treatment and protection
- Repairing of structures

## ❖ Advantages

- Increase the qualities of cement mortar
- Improve the flexural and tensile strength
- Superior adhesion properties to concrete
- Reduces water absorption
- Excellent resistance to salt water penetration
- High ultra-violet resistance
- High flexibility and elongation
- Weather resistant, long life and highly durable
- Easy application by brush

## ❖ Suitable Substrates

- Internal surfaces
- External surfaces
- Old concrete surfaces
- New concrete surfaces
- Cement mortar beds
- Cement plasters

## ❖ Coverage

- As bonding agent approx. 35 - 40 sq. feet per litre for single coat
- As a waterproofing approx. 8 - 10 sq. feet per litre for two coat
- Above results are as per standard laboratory conditions
- Coverage may vary depending upon the site condition and substrate absorption

## ❖ Packing

- Available in **1 Litre, 5 Litre and 20 Litre**
- Bigger packing sizes are available on request

## ❖ Shelf Life

- Factory sealed packs are best before 12 months from the date of manufacturing in unopened condition and stored in cool & dry area

## How to Apply

### ❖ Surface Preparation

- The surface should be clean and free from dirt, oil or grease before application
- Ensure that the substrate is flat, stable, well adhered, and has a normal absorption.
- Dampen the wall or floor before application. Remove excess water before application
- The proper preparation of the surface will make the application easier and quicker ensuring a better result
- New concrete is recommended to be 1 month old and completely dried before application

### ❖ Mixing Recommendation Chart

Testing Parameters	Ritecrete® 440	Water	Cement	Sand
Bonding agent	1 litre	1 litre	1 Kg	1 kg
Screed / Plaster	1 litre	3 litre	5 Kg	20 kg
As Repair Mortar	1 litre	3 litre	5 Kg	15 kg
Waterproofing	1 litre	—	1 Kg	—

### ❖ Application as a Bonding Agent

(For old concrete / cement substrate to new concrete substrate / mortar)

- Refer mixing recommendation chart for above application
- **RITECRETE® 440** to be diluted with water in ratio of 1:1
- It should be mixed with sand and cement (Ratio 1:1)
- Mix thoroughly for homogeneous, lump free mixture
- Apply using brush or suitable tools; so slurry can be evenly spread
- Application should be wet-on-wet, the bonding agent should not be allowed to dry

### ❖ Application for Screed / Plaster and as a repair mortars

- Refer mixing recommendation chart for above application
- **RITECRETE® 440** to be diluted with water in ratio of 1:3, and add mixture of cement and sand as per mentioned ratio
- Mix thoroughly preferably with mechanical stirrer / mixing machine for homogeneous mixing
- Apply the mixer at required place using appropriate tools for better finishing



## ❖ Application for Waterproofing

- Refer mixing recommendation chart for above application
- Add cement to **RITECRETE<sup>®</sup> 440** at ratio of 1:1 and mix thoroughly to prepare slurry. Use stirrer for homogeneous, lump free mixture
- Apply the first coat of slurry with the brush on applicable area. Apply second coat after the interval of 4 to 5 hours from the completion of first coat. Leave the surface for further curing
- The above coating will form water resistant membrane.

## ❖ Notes on Application / Limitations

- Before application surface should be in good condition
- Always add powder in to latex and never add latex to powder
- Do not add excess latex that recommended
- It is advisable to check the performance in small area prior to go for large scale application

## ❖ Technical Data

### General Properties

Sr. No.	Testing Parameters	Result
1.	Colour	Milky White
2.	Pot Life (at 25° to 27° C)	30 min
3.	pH	8 -10
4.	Specific gravity	1.01 / $\pm 0.02$ gm / ml
5.	Non-Volatile Matter (solid content)	42 $\pm$ 2 %
6.	Chemical Resistance	Resists to mild acids, alkalines, chlorine and sulphates

## ❖ Technical Data

**Physical Properties** (Mortar with cement & sand ratio of 1:3 & RITECRETE<sup>®</sup> 440 & water ratio 1:3)

Sr. No.	Testing Parameters	Result
1.	Compressive Strength ASTM C 109 (28 Days)	>45 N / mm <sup>2</sup>
2.	Tensile Strength ASTM C 307 (28 Days)	4.5 - 6.0 N / mm <sup>2</sup>
3.	Flexural Strength EN 196 Part-1 (28 Days)	9.0 - 11.5 N / mm <sup>2</sup>

**Water permeability test** (As per IS 516 (Part 2 / Sec 1) : 2018 and DIN : 1048

Sr. No.	Testing Pressure	Duration	Permiability at 2 coat
1.	1 Bar	48 hours	0 mm
2.	3 Bar	48 hours	0 mm
3.	7 Bar	48 hours	2 - 4 mm

**Waterproofing & Bond coat adhesion properties** (ASTM D 4541))

Sr. No.	Testing Parameters	Result
1.	Bond coat adhesion strength on Concrete (7 <sup>th</sup> day)	1.8 - 2.3 N / mm <sup>2</sup>
2.	Waterproof coat adhesion on concrete (7 <sup>th</sup> Day) at 1.0 mm dry film thickness	2.0 - 2.5 N / mm <sup>2</sup>

## ❖ Precautions

- Keep out of reach of children
- Wear suitable protective cloths, respirator and gloves
- In case of contact with skin/eyes, wash immediately with plenty of water & seek medical help

## Disclaimer

Follow us on:



is a Registered Trademark of Sanghavi Industries Pvt Ltd.

The information given in this TDS is for general guidance only. Specific instruction for various site conditions can be provided on demand.

The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trails to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, qualities of other materials used and on site workmanship are factors beyond our control, there are no expressed or implied guarantee/warranty as to the results obtained. The company does not assume any liability or any consequential damage for unsatisfactory results, arising from the use of our products.