YASMO MISR
CHEMICALS FOR CONSTRUCTION

21 Takseem el Awkaf Sawah Square behind Kobba palace
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TONCRETE

TECHNICAL DATA SHEET

1.0 Description:

- TONCRETE is two-component coloured solvent free epoxy paint.
- Its hardener is a mixture of a cyclo-aliphatic polyamine.
- Acceptable flexibility and acceptable hiding power.
- Good durability against abrasion and friction.

2.0 Uses:

- As paint for cement substrata exposed to traffic e.g. receiving areas, service areas, stairs, machinery rooms, stores, industries area, etc.
- As a paint for steel substrates after applying the suitable steel primer.

3.0 Approval & Certification:

Shall be available on request

4.0 Colours:

Shall be produced in different colours according to color chart or as required.

5.0 Product Data:

Solid Content	: 92.00	%±1
Wet Density	: 1.3	gm/ml

Notes:

- *Above values are subjected to slight change depending on color.*
- *All above data is for the final mixed components.*

6.0 Film thickness per coat:

Wet Film Thickness	: 115 - 150	microns
Dry Film Thickness	: 106 - 140	microns
Consumption (R+H)	: 150 – 200	gm/m^2/coat

7.0 Surface Preparation:

For Concrete floor Substrate:

- Substrate shall be Reinforced concrete with dimension and steel reinforcement suitable for the expected loads.
- Stress shall not be less than 300 kg/cm^2 or according to project specification.
- Expansion & contraction joints shall be suitable to concrete slab dimensions and filled with the suitable joint sealant.
- Application of Expansion & contraction joints shall be put into consideration to make sure that it complies with the proceeding self-levelling epoxy coat.
- Suitable trowelling should be taken into consideration because:
  - Delayed Trowelling will force addition of excess water that shall cause separation of that above weak layer of cement + water.
  - Early trowelling will cause irregularities to the surface.
  - Extra trowelling will cause extra smooth surface.
- If epoxy finishing is to be applied surface hardener, sprinkled cement shall not be applied while finishing the concrete surface, as it gives a smooth surface that reduces the adhesion of the epoxy layer to concrete and may cause separation.

- Curing concrete with water for minimum 7 days after casting.
- Deviation in levels of the concrete floor shall be within acceptable limits.

Preparation of Concrete Surface after curing:

- Substrate should be free of oil grease, dust, or any other dirt.
- Surface should be blasted using disc Grinder or similar equipment to increase the surface area for maximum adhesion of proceeding layers.
- All weak or separated layers in concrete should be removed.
- Repair damaged areas using Epoxy paste if below 0.5mm or Epichor1618 if above 0.5mm.

Preparation of Surface for priming:

- In case of concrete substrate should be minimum 4 weeks curing.
- Moisture should not exceed 5%.

8.0 Application Methods:

8.1 For Smooth Finish:

EPICHOR 101P	: 175 - 200	gm/m^2/coat
OR EPICHOR 1618	: 200 - 250	gm/m^2/coat
EPASTE	: 150 - 250	gm/m^2/coat depends on substrate
TONCRETE 1st coat	: 150 – 200	gm/m^2, WFT 115 – 150 microns
TONCRETE 2nd coat	: 150 – 200	gm/m^2, WFT 115 – 150 microns

1. Make sure that all above mentioned surface preparation has been accomplished.
2. Applying one coat primer epoxy EPICHOR 101P / EPICHOR 1618 that completely penetrates the surface to increase the bond strength for coming layers.

   *Note: Proceeding steps should take place within 1 week of primer application otherwise, primer coat should be repeate*d.

3. Pasting the surface using 3 component epoxy paste EPASTE 2 coats, if needed.
4. Sanding of Epoxy paste shall be accomplished using suitable machinery.
5. Substrate shall be cleaned using vacuum cleaner.
6. Add TONCRETE resin to hardener in a suitable container and mix well.
7. Using a brush, woollen roller or airless spray gun apply TONCRETE 1st coat within a period that should not exceed 30 min. after mixing.
8. Applying TONCRETE 2nd coat after 24 hours.
9. Clean all Tools using thinner.

Notes:

- *Temperature of the substrate should be min 10°C.*
- *Good ventilation should be ensured.*
- *The coating shall not be exposed to any spillage or mechanical wear until fully cured.*
- *TONCRETE can be applied on steel substrate after using the suitable primer EPICHOR SP220*

8.2 For Quartzite anti-slip Finish:

EPICHOR 101P	: 175 – 200 gm/m^2/coat
OR EPICHOR 1618	: 200 – 250 gm/m^2/coat
EPASTE	: 150 – 250 gm/m^2/coat depending on substrate
TONCRETE 1st coat	: 150 – 200 gm/m^2, WFT 115 – 150 microns
Anti-slip Quartzite	: 100 – 200 gm/m^2

TONCRETE 2nd coat : 150 – 200 gm/m², WFT 115 – 150 microns

1. Make sure that all above mentioned surface preparation is accomplished.
2. Applying one coat primer epoxy EPICHOR 101P / EPICHOR 1618 that completely penetrates the surface to increase the bond strength for coming layers:

   Note: Proceeding steps should take place within 1week of primer application otherwise, repriming coat shall take place.

3. Pasting the surface using 3 component epoxy paste EPASTE (1-2 coat).
4. Sanding of Epoxy paste shall be accomplished using suitable machinery after 24hours.
5. Substrate shall be cleaned using vacuum cleaner.
6. Applying first coat coloured epoxy TONCRETE.
7. Spray Quartz 0.7 – 1.0 mm with the mentioned rate.
8. Applying second coat TONCRETE after 24 hours.
9. Clean all Tools using SOLVENT T.

8.3 For Quartzite extra rough finish for ramps:

System A: In case of high concrete porosity

EPICHOR 101P	: 175 – 200 gm/m²/coat
OR EPICHOR 1618	: 200 – 250 gm/m²/coat
TONCRETE 1st coat	: 150 – 200 gm/m², WFT 115 – 150 microns
Anti-slip Quartzite	: 2.5 – 3.0 kg/m²
TONCRETE 2nd coat	: 500 – 600 gm/m², WFT 384 – 460 microns
TONCRETE 3rd coat	: 250 – 300 gm/m², WFT 190 – 230 microns

1. Make sure that all above mentioned surface preparation has been accomplished.
2. Applying one coat primer epoxy EPICHOR 101P / EPICHOR 1618 that completely penetrates the surface to increase the bond strength for coming layers.
3. Apply first coat coloured epoxy TONCRETE.
4. Submerge the first applied coat on wet with quartz size 0.7 – 1.0 mm or as required by customer.
5. On the second day remove extra quartz.
6. Apply 2 coats (coat/day) coloured epoxy paint TONCRETE.
7. Clean all Tools using thinner.

System B: In case the porosity of concrete is considerably low:

EPICHOR 1618	: 200 - 220	gm/m²/coat
Anti-slip Quartzite	: 2.5 – 3.0	kg/m2
TONCRETE 1st coat	: 500 – 600	gm/m², WFT 384 – 460 microns
TONCRETE 2nd coat	: 250 – 300	gm/m², WFT 190 – 230 microns

1. Make sure that all above mentioned surface preparation is accomplished.
2. Applying one coat primer epoxy EPICHOR 1618.
3. Spray Anti-slip Quartzite with the mentioned rate.

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Note: Final DFT shall depend on the size of the quartz used.

4. Applying 1st coat TONCRETE after 24 hours.
5. Applying 2nd coat TONCRETE after 24 hours.
6. Clean all Tools using SOLVENT T.

9.0 Product mixing Ratio by weight:

Resin : Hardener	: 4.0 : 1.0	by weight
Total Weight	: 5	Kg
Container	: Sealed pre weighed Steel Containers	

Notes:

- *The product components shall not be divided as total weight of each shall be totally used.*
- *Slow Mechanical Mixing is recommended.*
- *Mixed components should be transferred to a third container and remixing should take place*

10.0 Pot life, Drying and curing time:

Initial Curing Time	: 24	hours at 24^{0}C
Final Curing Time	: 7	days at 24^{0}C
Pot Life	: 30	min. at 24^{0}C
Walk on Time	: 48	hours at 24^{0}C
Recoating	: Duration between any two successive coats shall not exceed 1week otherwise, repriming should take place.	

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11.0 Disclaimer:

- The information in this document is given to the best of our knowledge, based on laboratory testing and practical experience. We cannot guarantee anything but the above-mentioned quality of the products themselves. Minor product variations may be implemented to comply with local requirements. We reserve the right to change the given data without further notice. Users should always consult us for specific guidance on the general suitability of this product for their needs and specific application practices.
- Samples of any approved delivered materials shall be retested after delivery.
- These products are for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to our technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to our responsible representative for approval before commencing the work.

12.0 Handling of Epoxy Products:

- Avoid contact with eyes and skin. Emergency showers and eyewash stations should be readily accessible.
- Adhere to work practice rules established by government regulations.
- Use personal protective equipment.
- When using, do not eat, drink, or smoke.

13.0 Compatibility:

- Primers applied prior to specified product shall always be epoxy based products.
- Floor Repairing and fixing defects, product shall always be epoxy based products
- Recoating can be epoxy or polyurethanes products.

14.0 First aid Measures:

- General advice: Seek medical advice. If breathing has stopped or is laboured, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Eye contact: Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.
- Skin contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible, to do so without delay. Initiate and maintain gentle and continuous irrigation.
- Take off contaminated clothing and shoes immediately.
- Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
- Inhalation: Move to fresh air.

15.0 Storage:

- Store in steel containers, above ground, and surrounded by dikes to contain spills or leaks.
- Do not store in humid or extra hot weathering conditions.
- Keep containers tightly closed away from heat &in dry, cool, and well-ventilated place.