

# Top Prime ER 40

## 2-Part Epoxy Resin Primer

### Description

**Top Prime ER 40** low viscosity modified epoxy resin for various civil applications. Top Prime ER 40 is medium viscosity reactive polyaminoamide hardener. The convenient mixing ratios and low mix viscosity of system permits good filler loading and exhibit great mechanical properties.

### Application and Key Properties

Flooring primer and screed applications, maintenance of old civil structures and injection grouting.

The system gives superior substrate wetting, good mechanical strength and chemical resistance with enhancement in bonding strength.

### Product Specifications

#### Resin (Part A)

| Properties       | Units    | Reference Standard | Value        |
|------------------|----------|--------------------|--------------|
| Appearance       | Visual   | HTP-1              | Clear Liquid |
| Viscosity @ 25°C | mPas     | ASTM D2196         | 500-700      |
| Color            | Gardener | ASTM D1544         | Max 1        |
| EEW              | g/ Eq    | ASTM D1652-97      | 180-190      |

#### Hardener (Part B)

| Properties       | Units    | Reference Standard | Value        |
|------------------|----------|--------------------|--------------|
| Appearance       | Visual   | HTP-1              | Clear Liquid |
| Viscosity @ 25°C | mPas     | ASTM D2196         | 10000-25000  |
| Color            | Gardener | ASTM D1544         | Max 12       |
| AHEW             | NA       | NA                 | 97           |

## Product Performance Data

| Properties | Units | Reference Standard | Typical Value |
|------------|-------|--------------------|---------------|
|------------|-------|--------------------|---------------|

### Primer Applications

|                               |            |            |           |
|-------------------------------|------------|------------|-----------|
| Mixing Ratio                  | Pbw        | NA         | 100:50    |
| Mix Viscosity @ 25°C          | mPas       | ASTM D2196 | 1500-2500 |
| Pot life 100g @ 25°C          | Min.       | HTP-16     | 60        |
| Dry time @ 25 °C              | Hrs.       | ASTM D5895 | 4-5       |
| Tensile Shear Strength, Al-Al | Kg/ sq. cm | ASTM D1002 | 80        |

### Mortar Application (Part A: Part B: Quartz: BYK-A530)

|                      |                    |           |              |
|----------------------|--------------------|-----------|--------------|
| Mix Ratio            | Pbw                | NA        | 100:50:500:1 |
| Specific Gravity     | NA                 | HTP-6     | 1.8          |
| Compressive Strength | Kg/sq. cm          | ASTM D695 | 800          |
| Flexural Strength    | Kg/ sq. cm         | ASTM D790 | 400          |
| Coverage             | Kg/sq. m<br>per mm | NA        | ~2           |

### Mortar Application (Part A: Part B: Quartz: BYK-A530)

|                      |                    |           |              |
|----------------------|--------------------|-----------|--------------|
| Mix Ratio            | Pbw                | NA        | 100:50:800:1 |
| Specific Gravity     | NA                 | HTP-6     | 2            |
| Compressive Strength | Kg/sq. cm          | ASTM D695 | 900          |
| Flexural Strength    | Kg/ sq. cm         | ASTM D790 | 300          |
| Coverage             | Kg/sq. m<br>per mm | NA        | ~2.1         |

### Foundation grouting of heavy machines and equipment's (Part A: Part B: Quartz: BYK-A530)

|                      |            |           |              |
|----------------------|------------|-----------|--------------|
| Mix Ratio            | Pbw        | NA        | 100:50:800:1 |
| Specific Gravity     | NA         | HTP-6     | 2            |
| Compressive Strength | Kg/sq. cm  | ASTM D695 | 900          |
| Flexural Strength    | Kg/ sq. cm | ASTM D790 | 300          |

## Product Performance Data

| Properties | Units | Reference Standard | Typical Value |
|------------|-------|--------------------|---------------|
|------------|-------|--------------------|---------------|

### Injection Grouting of Cracks (Part A:PartB)

|                        |           |            |           |
|------------------------|-----------|------------|-----------|
| Mix Ratio              | Pbw       | NA         | 100:50    |
| Mix Viscosity @ 25°C   | mPas      | ASTM D2196 | 1500-3000 |
| Compressive Strength   | Kg/sq. cm | ASTM D695  | 600       |
| Flexural Strength      | Kg/sq. cm | ASTM D790  | 400       |
| Tensile Shear Strength | Kg/sq. cm | ASTM D1002 | 80        |

### Quartz Sand Mix No. 10 Analysis (For data generation this grade has been used)

| B. S. Sieve No. | % Retained |
|-----------------|------------|
| 36              | 10         |
| 52              | 25         |
| 72              | 20         |
| 100             | 10         |
| 150             | 15         |
| 240             | 20         |

## Processing and Storage

### Mixing

Prolonged storage of Part A along with fillers causes precipitation. Hence it is advisable to mix fillers before preparation. Materials to be thoroughly mixed prior usage including bottom of the container. Uneven mixing will affect the final cured properties.

### Curing

Once Part A and Part B are mixed, color change occurs after a set period of time. This is a normal phenomenon and does not affect the cured product properties. Part A and B should be mixed gently otherwise bubble formation will occur. Low temperature leads to long curing schedule and hence heat curing is advisable.

### Storage Conditions

Part A & B should be stored away from light & heat. Partly emptied containers should be tightly closed immediately after use to avoid exposure to light. For information on waste disposal and hazardous products of decomposition in the event of a fire, refer to the Material Safety Data Sheets (MSDS) for these particular products. The shelf life is 12 months for both Part A and Part B.

### Warning:

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