

## JEM Resin 1X



JEM Resin was developed to meet the growing concerns regarding exposure to isocyanates in the workplace. JEM is a non-isocyanate system with all the technical performance characteristics of conventional resins but with additional features and benefits.

### Features and benefits

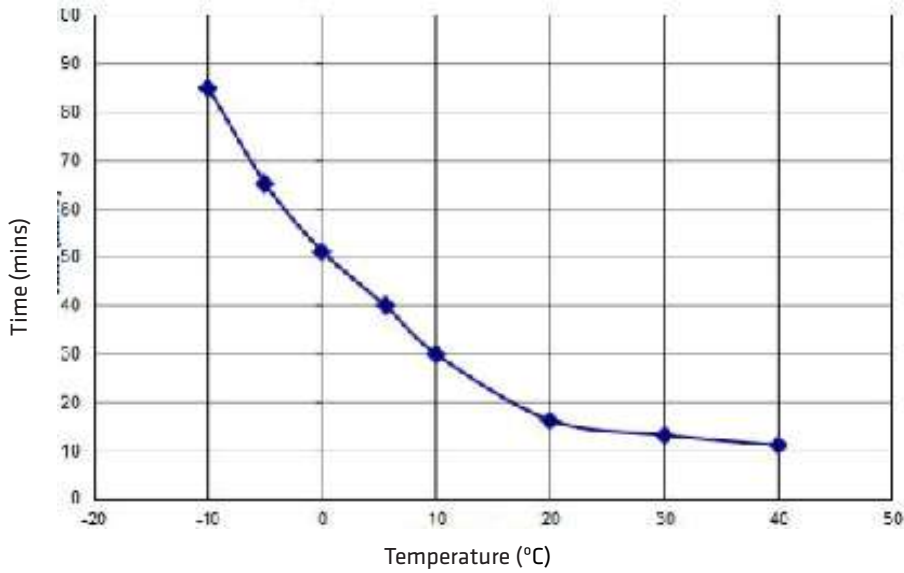
- Low viscosity (very searching, no voids, easier mixing).
- Easy mixing at low ambient temperatures (e.g. -15°C).
- Curing reaction not sensitive to moisture (will cure under water).
- Filled joints may be energised immediately if undisturbed.
- Supplied in clear pouches which allows mixing to be observed in process.
- Excellent adhesion to XLPE, PVC, Lead etc.
- Type approved in LV joints (ENA TS C81/3 and BS EN 50393).
- Tested in accordance with BS EN 50655.
- Re-enterable version available.



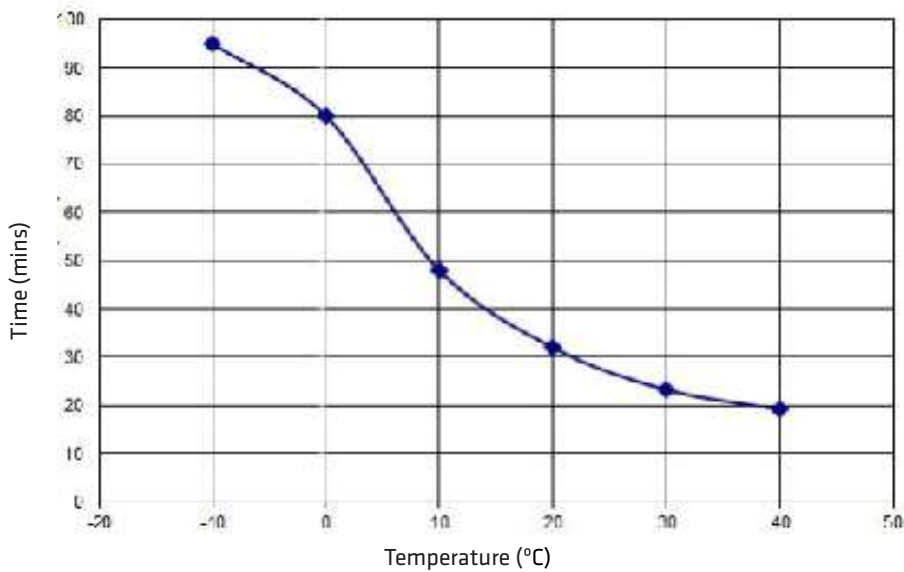
## Performance Data

Properties of Resin		
1	Type	Low hazard, isocyanate free
2	Appearance/colour	Grey/brown fluid when mixed
3	Viscosity of mixture @ 5°C	3700 mPa.s
4	Relative density	2.0 g/cm <sup>3</sup> @ 25°C
5	Flash point	>110°C
6	Non-volatile content	85%
7	Storage conditions	Away from direct sunlight, <40°C
Application Properties		
1	Mixing ratio - (by weight)	5.6 powder: 1 liquid
2	Flash point	>110°C
3	Pot life	16 mins @ 5°C 5 mins @ 40°C
4	Gel time	15 mins (0.5 litre @ 25°C)
5	Peak exothermic temperature (0.5 litres)	35°C @ 5°C 70°C @ 40°C
6	Complete cure time	24 hours @ 25°C
Performance Properties		
1	Colour of mixture	Grey/Brown
2	Class of resin	Methacrylate
3	Water absorption rate	0.011% @ 24 hrs, 25°C 0.8% @ 42 days, 50°C
4	Hardness	50 Shore A
5	Volume resistivity	5.0 x 10 <sup>13</sup> Ohm.cm @ 20°C 7.4 x 10 <sup>11</sup> Ohm.cm @ 90°C
6	Surface resistivity	1 x 10 <sup>13</sup> Ohms
7	Dielectric strength	9.3 kV/mm
8	Thermal conductivity	1.31 W/m.K
9	Maximum continuous operating temperature	95°C
10	Time to energise LV joints (undisturbed)	Immediately
11	Time to energise LV joints (backfilled or moved)	2 hrs
Other Information		
1	Shelf life of the material stored below 40°C in original packaging and away from direct sunlight	Two years from date of manufacture (as indicated on packaging)
2	Expected service life time of joint (year)	Life of cable

## Temperature effect on gel time



## Temperature effect on backfill time



## Mixing Instructions

### Step 1



1. Open container and remove JEM Kit. Check bag for any signs of damage before proceeding.

### Step 2



2. Aerate the powder by gripping the pouch at each end and tumbling the powder for up to thirty seconds, this will facilitate mixing.

### Step 3



3. To start the mixing process, hold the bag as shown above, so that the liquid is forced onto the powder.

### Step 4



4. Squeeze the liquid through the membrane seal and onto the powder.

### Step 5



5. Make sure that the membrane seal is completely open before mixing the powder and liquid together.

### Step 6



6. Before mixing rotate and shake at the corners to free the powder.

### Step 7



7. Tumble mix and knead the bag for up to two minutes, to ensure that there are no lumps in the bag.

### Step 8



8. Finally cut one corner and pour the contents into the joint shell.

**Prysmian Cables & Systems Limited,**  
Oak Road, Wrexham Industrial Estate, Wrexham, LL13 9PH, UK

**Commercial Enquiries,**  
Sales Office Tel: 0845 767 8345,  
International Sales Office Tel: +44 2380 295481

[www.biconcomponents.co.uk](http://www.biconcomponents.co.uk)