

# TECHNICAL INFORMATION

## ACRYLATES & ACRYLICS

### PRODUCT NAME

## Superflex

Methacrylic Acrylate Copolymer

### MANUFACTURER

De Neef Construction Chemicals, Inc.  
5610 Brystone  
Houston, TX 77041  
1(800) 732-0166

### PRODUCT DESCRIPTION

**Superflex** is a methacrylic acrylate copolymer that can be injected into pores, capillaries, hairline cracks, voids and honeycombed concrete. Pumped at a 1 to 1 ratio, once polymerized it forms a resilient, highly elastomeric gel. Due to its exceptionally low viscosity and low surface tension, **Superflex** has better penetrative characteristics than water.

### APPROPRIATE APPLICATIONS

**Superflex** is designed for use in any below ground structure or any water retaining structure, where there is permanent water pressure. Repairing leaks and/or preventative sealing in all types of buildings, including underground structures such as:

- Tunnels, dam walls, subway tunnels, underground garages, water tanks, water purifying plants or reservoirs, sewers and septic tanks, swimming pools, earth retaining walls and shafts

Prevention of seepage in:

- Shrinkage cracks, settlement cracks, expansion joints, moving joints, construction joints, honeycombed concrete, pipe penetrations, joints in pre-cast concrete segments

### ADVANTAGES

- Unsurpassed expansion at 56%
- Exceptionally low viscosity – penetrates cracks 0.1mm (0.004")

### PHYSICAL PROPERTIES

Viscosity @ 77°F	15-20 cps
Mixed Viscosity	6-8 cps
Appearance	Blue Green
Specific Gravity	1.17
Elongation at Break	300% (ASTM 638)
Expansion	56% at 90% Humidity

The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

Temp (°F)	Gelacryl (lb)	TE300 (lb)	Water (USgal)	SP200 (lb)	Gel Time (seconds)
34	110	8.8	11.44	4.4	60
34	110	13.2	11.66	6.6	27
40	110	6.6	11.33	3.3	54
40	110	9.9	11.55	4.95	30
50	110	4.4	11.22	2.2	55
50	110	8.8	11.44	4.4	23
60	110	4.4	11.22	2.2	54
60	110	7.7	11.38	3.85	22
70	110	3.3	11.11	2.2	52
70	110	5.5	11.27	2.75	25
77	110	2.2	11	2.2	58
77	110	4.4	11.22	2.2	25

**Superflex** is designed for use below ground or where there is permanent moisture. Gel time varies depending on the amount of acceleration and temperature. See chart above for time and temperature information. (All results above are based on laboratory tests. Site trials should always be carried out to determine the gel time required.

### ADVANTAGES cont.

- Approved for use with potable water, meets requirements of Water Research Council BS 6920:1988
- Non corrosive and non toxic
- Soap and water clean up
- Insoluble in water and petroleum based solvents once in cured state
- Resistant to most acids and alkalis
- Resistant to biological attack
- Unrivalled thermal resistance from 4.4°C - 70°C (40°F - 160°F)
- Reaction time can be varied greatly with no detrimental effect to cured grout

## PACKAGING

**Superflex** is packaged a kit consisting of a (55/lb drum – 5.6 gal) of grout, 2 lbs. jar **SP 200\*** accelerator, and 28 oz. can **TE 300** hardener

*\*Shipped: Corrosive (shipped as haz-mat)*

## LIMITATIONS

Low temperatures will significantly elongate set times. Bring product to a minimum temperature 50°F for a minimum period of 24 hours prior to use. If site temperatures are extremely low, material should be held in a warm area before and during use to maintain the products temperature. Allow no water into open containers. DO NOT EXCEED 90°F WHEN WARMING.

**CAUTION – pH NOTICE.** Water used to activate grouts must be in a range of pH 5.5 – 7 for optimum grout quality. Varying water pH will cause the reaction times to change.

## SURFACE PREPARATION

Refer to De Neef Surface Preparation Guidelines for more details.

## INSTALLATION PROCEDURES

**Superflex** is typically injected directly into defective areas. Holes are drilled into the affected area at a 45° angle so as to intersect and allow penetration of the entire crack. Water can be pumped into the hole to determine if all voids are being reached or whether more holes need to be drilled. Visible surface leaks should be sealed with a fast setting mortar. After allowing the mortar to harden, **Superflex** is then injected into holes with an all stainless steel 1 to 1 high-pressure pump capable of delivering up to 3000 psi. This forces the **Superflex** deep within the concrete, penetrating the minutest fissures. Usually to start 2% of **SP 200** (accelerator) is added on the water-side. For temperatures 60°F and lower, or high volumes of water ingress, use 3%-4% accelerator. Equal amounts of **TE 300** (hardener) is added to the resin-side. This gives a normal gel time of 4-5 minutes, which is appropriate for waterproofing active leaks. Be sure to adequately mix all additives prior to installation. Confirm product performance in specific chemical environment prior to use. Substrate temperature must be at least 5°F above the dew point. If extended set times are required **KF 500** (retarder) can be added to the resin-side; please consult *DeNeef Technical Service Department*.

## STORAGE & HANDLING

All components should be stored in a dry place at temperatures between 40°F and 80°F. Do not thin with solvents.

**Warning!** Do not let **SP 200** and **TE 300** come into contact with each other prior to field mixing. A poisonous gas may result!

**STORE COMPONENTS SEPERATELY FROM EACH OTHER**

## PRECAUTIONS

Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest. Refer to Material Safety Data Sheet for detailed safety precautions.

## SAFETY INFORMATION

In the event of an EMERGENCY call:  
CHEM-TREC 800-424-9300.

## WARRANTY INFORMATION

De Neef Construction Chemicals, Inc. products are warranted under the policy set forth under the WARRANTY section of the De Neef Construction Chemicals Inc., product catalog. Warranty information can also be obtained via the De Neef Construction Chemicals Inc. website at [www.deneef.com](http://www.deneef.com), or by calling 713-896-0123 or toll free at 1-800-732-0166.

Rev. 04/2006