

# TECHNICAL INFORMATION

## URETHANES

### PRODUCT NAME

**HYDRO ACTIVE<sup>®</sup> Cut**  
Hydrophobic Polyurethane Grout

### MANUFACTURER

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

### PRODUCT DESCRIPTION

**HYDRO ACTIVE<sup>®</sup> Cut** is a hydrophobic polyurethane that, when mixed with **HYDRO ACTIVE<sup>®</sup> Cut Cat** and makes contact with water, is designed to fill large voids in rock fissures, gravel layers, joints, and cracks in concrete structures and for the cut-off of gushing water. Depending on the temperature and amount of accelerator (**HYDRO ACTIVE<sup>®</sup> Cut Cat**) used, the grout quickly cures to a rigid, closed cell polyurethane foam that is resistant to most organic solvents, mild acids, alkali, petroleum and micro-organisms.

### APPROPRIATE APPLICATIONS

- Sealing larger volume leaks thru concrete cracks and fissures
- Filling voids
- Stabilizing soil or gravel
- Tunneling applications

### ADVANTAGES

- NSF 61 Potable water approved
- Free Foam Expansion up to 20 times its liquid volume
- Contains no volatile solvents
- Single Component
- Will not dilute in water
- Reaction time can be controlled with **HYDRO ACTIVE<sup>®</sup> Cut Cat**

### TYPICAL PROPERTIES

#### Uncured

|                   |                    |               |
|-------------------|--------------------|---------------|
| Solids            | 100%               | ASTM D 2369 B |
| Viscosity at 77°F | 120 cps            | ASTM D 2196   |
| Color             | Blackish-brown     |               |
| Density           | 8.75 – 9.30lbs/gal | ASTM D 1475   |
| Flashpoint        | 365°F              | ASTM D 93     |
| Corrosiveness     | Non-corrosive      |               |

#### HYDRO ACTIVE<sup>®</sup> Cut Cat

|                 |                         |               |
|-----------------|-------------------------|---------------|
| Appearance      | Pink transparent liquid |               |
| Viscosity @77°F | 5 – 16 cps              | ASTM D 2196 A |
| Flash Point     | 320°F                   | ASTM D 93     |

#### Cured

|   |                     |                    |
|---|---------------------|--------------------|
| Density                                   | 8.75 - 9.17 lbs/gal | ASTM D 3574        |
| Tensile Strength                          | 56 psi              | ASTM D 3574        |
| Compressive Strength (sand mortar)        | 895 psi             |                    |
| Bending strength                          | 213 psi             |                    |
| Bond Strength to Bending bond strength    | 28 psi              |                    |
| Mortar Joints Shearing bond strength:     | 255 psi             |                    |
| Toxicity                                  | Non-toxic           |                    |
| Absorption, (6 months immersion in water) | 15%                 | Cured and confined |

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

### Reactivity

|           | %HYDRO ACTIVE <sup>®</sup> Cut Cat | Geltime in min-sec |
|-----------|------------------------------------|--------------------|
| * at 50°F | 2%                                 | 19'00"             |
|           | 6%                                 | 7'40"              |
|           | 10%                                | 4'30"              |
| * at 68°F | 2%                                 | 9'50"              |
|           | 6%                                 | 4'05"              |
|           | 10%                                | 2'24"              |
| * at 86°F | 2%                                 | 6'00"              |
|           | 6%                                 | 2'25"              |
|           | 10%                                | 1'33"              |

Example - 1% Cut Cat = 1.3 oz. per gallon of Cut  
**Note: Cut Cat must be agitated by shaking the can prior to adding to resin**

## PACKAGING

### HYDRO ACTIVE® Cut:

- 55 gallon metal drum sealed under dry nitrogen.
- 5 gal metal pail sealed under dry nitrogen.
- Cartridges: 10.5 oz “HOT SHOT”

### HYDRO ACTIVE® Cut Cat Accelerator:

- 32 oz. cans.

## LIMITATIONS

Low temperatures will significantly affect viscosity. If site temperatures are extremely low, heat bands or heated water baths may be used on the pails before and during installation to maintain the product's temperature. Avoid splashing water into open containers, as the material is water activated. Avoid exceeding 90°F when warming.

**CAUTION: pH NOTICE. Water used to activate HYDRO ACTIVE® Grouts must be in the pH range of 3 –10 for optimum foam quality.**

## SURFACE PREPARATION

Refer to DeNeef Surface Preparation Guidelines for more details.

## INSTALLATION PROCEDURES

Prior to installation, both the grout and accelerator must be agitated separately before combining by vigorously shaking the containers or by mixing with a jiffy mixer. Pour the desired amount of **HYDRO ACTIVE® Cut** into a clean pail. Measure the appropriate amount of **HYDRO ACTIVE® Cut Cat** and pour it into the grout and stir until adequately mixed. The grout should never be used with more **HYDRO ACTIVE® Cut Cat** than the amount recommended on this data sheet. Excess acceleration will cause vigorous expansion that is prone to shrinkage. During injection the grout will follow the path of least resistance. When the material has stopped penetrating it will continue to expand against the confines of the crack/joint and compress within itself, forming a very dense, closed cell material stopping the leak.

For application procedures in extreme temperatures and specific environments or equipment recommendations call the DeNeef Technical Service Department.

## STORAGE & HANDLING

Store in dry area in original resealable containers.

**Warning!** If **HYDRO ACTIVE® Cut Cat** is allowed to freeze, it will lower performance.

## PRECAUTIONS

Always use protective clothing, gloves and goggles consistent with OSHA regulations. 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

DeNeef 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.

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DRINKING WATER SYSTEM COMPONENTS  
ANSI/NSF 61  
3N76

“HYDRO ACTIVE® CUT GROUT”  
MAXIMUM SURFACE AREA TO VOLUME RATIO  
3.4 CM<sup>2</sup>/L AT 23°C  
ONLY WHEN MIXED WITH  
“HYDRO ACTIVE® CUT CAT” ACTIVATOR (2-10%)

