



## HA Cut™ Cat F/XF/SXF AF

Next generation, phthalate free Fast, eXtra-Fast and Super eXtra-Fast catalysts for use with HA Cut AF and HA Cut CFL AF closed cell 1-component polyurethane injection resins

### Product Description

HA Cut™ Cat F/XF/SXF AF are red non-flammable, phthalate free liquids. HA Cut Cat F/XF/SXF AF are catalysts for HA Cut AF and HA Cut CFL AF water cutting resin for applications in cold temperatures or when use of the standard catalyst does not give a fast enough reaction. HA Cut Cat F/XF/SXF AF are used in 10% mixing ratio.

### Field of Application

- HA Cut AF / HA Cut CFL AF catalyst for cutting off gushing leaks with a high to very high flow rate and/or high to very high pressure, where use of the standard catalyst does not result in a fast enough reaction.
- HA Cut AF / HA Cut CFL AF catalyst for use in cold to very cold temperatures where fast reaction times are needed.

### Product Advantages

- ADR free transport.
- Next generation phthalate free catalysts, REACH compliant.
- Improved performance at temperatures below 5 °C, no crystallisation of HA Cut Cat F/XF/SXF AF.
- Non-flammable, solvent free.
- Final foam is resistant to most organic solvents, mild acids, alkaloids and microorganisms.
- Very fast reaction: as fast as less than 60" in salt water at -3 °C, still giving 20V expansion (HA Cut Cat SXF AF) (\*).

(\*) For chemical resistances please contact your local GCP representative.

### Application

Before commencing the injection, consult the consult the Technical Data Sheets and Material Safety Data Sheet (MSDS) in order to be familiar with the materials at hand. Always shake the catalyst well before use.

#### 1. Resin and equipment preparation

- Prepare the resin with the predetermined amount of catalyst. Shake HA Cut Cat F/XF/SXF AF well before use. No reaction with the resin will occur until the resin comes into contact with water.
- Keep the resin protected from water, since this will trigger a reaction in the container used and might cause the resin to harden or foam prematurely within the injection equipment.
- Due to the high reactivity of Ha Cut Cat F/XF/SXF AF, it is highly recommended to remove filters from the pumps and maintain full pump reservoirs when working with Ha Cut Cat F/XF/SXF AF to prevent blockage of the pump.
- It is highly recommended to use separate pumps for the water and the resin injection to prevent cross contamination and blockages.

#### 2. Injection

- Please refer to the HA Cut AF / HA Cut CFL AF Technical Data Sheet for further information.

### 3. Reactivity

#### Reactivity for HA Cut AF

	10% HA Cut Cat F AF			10% HA Cut Cat XF AF			10% HA Cut Cat SXF AF		
	Start reaction	End reaction	Expansion	Start reaction	End reaction	Expansion	Start reaction	End reaction	Expansion
-3°C	Approx. 30"	Approx. 1'40"	Approx. 20V	Approx. 25"	Approx. 1'15"	Approx. 24V	Approx. 22"	Approx. 1'05"	Approx. 30V
5°C	Approx. 28"	Approx. 1'25"	Approx. 26V	Approx. 23"	Approx. 1'10"	Approx. 28V	Approx. 20"	Approx. 1'00"	Approx. 30V
10°C	Approx. 26"	Approx. 1'23"	Approx. 26V	Approx. 23"	Approx. 1'10"	Approx. 28V	Approx. 20"	Approx. 1'00"	Approx. 30V
15°C	Approx. 23"	Approx. 1'20"	Approx. 28V	Approx. 23"	Approx. 1'05"	Approx. 30V	Approx. 20"	Approx. 55"	Approx. 32V
20°C	Approx. 23"	Approx. 1'20"	Approx. 30V	Approx. 20"	Approx. 1'05"	Approx. 30V	Approx. 20"	Approx. 50"	Approx. 32V
25°C	Approx. 20"	Approx. 1'20"	Approx. 32V	Approx. 18"	Approx. 1'05"	Approx. 32V	Approx. 15"	Approx. 45"	Approx. 35V

#### Reactivity for HA Cut CFL AF

	10% HA Cut Cat F AF			10% HA Cut Cat XF AF			10% HA Cut Cat SXF AF		
	Start reaction	End reaction	Expansion	Start reaction	End reaction	Expansion	Start reaction	End reaction	Expansion
-3°C	Approx. 28"	Approx. 2'00"	Approx. 24V	Approx. 25"	Approx. 1'30"	Approx. 24V	Approx. 20"	Approx. 1'00"	Approx. 28V
5°C	Approx. 25"	Approx. 1'40"	Approx. 26V	Approx. 20"	Approx. 1'10"	Approx. 26V	Approx. 18"	Approx. 55"	Approx. 30V
10°C	Approx. 25"	Approx. 1'35"	Approx. 26V	Approx. 20"	Approx. 1'10"	Approx. 26V	Approx. 18"	Approx. 55"	Approx. 30V
15°C	Approx. 25"	Approx. 1'30"	Approx. 28V	Approx. 20"	Approx. 1'05"	Approx. 28V	Approx. 17"	Approx. 55"	Approx. 30V
20°C	Approx. 25"	Approx. 1'20"	Approx. 28V	Approx. 20"	Approx. 1'00"	Approx. 30V	Approx. 15"	Approx. 45"	Approx. 30V
25°C	Approx. 20"	Approx. 1'15"	Approx. 30V	Approx. 15"	Approx. 1'00"	Approx. 30V	Approx. 10"	Approx. 40"	Approx. 30V

### Technical Data/Properties

Property	Value			Norm
	HA Cut Cat F AF	HA Cut Cat XF AF	HA Cut Cat SXF AF	
<b>Uncured</b>				
Viscosity (mPas)	Approx. 20	Approx. 20	Approx. 25	EN ISO 3251
Density (kg/dm <sup>3</sup> )	Approx. 0.973	Approx. 1.000	Approx. 1.044	EN ISO 2811
Flash pint (°C)	125	125	125	EN ISO 2719
Cured with HA Cut AF				
Density (kg/dm <sup>3</sup> )	Approx. 1.000	Approx. 1.000	Approx. 1.000	EN ISO 1183
Compressive strength (MPa)	>23			EN 12190
<b>Cured with HA Cut CFL AF</b>				
Density (kg/dm <sup>3</sup> )	Approx. 1.000	Approx. 1.000	Approx. 1.000	EN ISO 1183
Compressive strength (MPa)	>5			EN 12190
Flexural strength (MPa)	>7			EN 12190

## Appearance

HA Cut Cat F/XF/SXF AF: Red liquids.

## Consumption

HA Cut Cat F/XF/SXF AF are developed solely for cutting of high flow gushing leaks where very fast reaction times are needed.

The consumption is always 10% of the Ha Cut AF / HA Cut CFL AF volume for HA Cut Cat F/XF/SXF AF.

## Packaging

### HA Cut Cat F/XF/SXF AF

0.5 or 2.5L plastic bottle or 20kg metal drum.

1 box = 8 x 2.5L

1 box = 5 x 2.5L

1 Pallet: 40 boxes with 2.5L bottles.

24 x 20kg metal drums.

## Storage

HA Cut Cat F/XF/SXF AF are sensitive to moisture and should be stored in original containers in a dry area. Storage temperature must be between 5°C and 30°C. Once the packaging has been opened, the useful life of the material is greatly reduced and should be used as soon as possible.

Shelf life: 2 years.

## Health and Safety

HA Cut AF is classified as harmful.

HA Cut CFL AF is classified as harmful.

HA Cut Cat F/XF/SXF AF is classified as irritant.

In case of spills and accidents, refer to the MSDS of the products or when in doubt contact your local GCP representative.

Always wear protective clothing, gloves and protective goggles when handling chemical products.

For full information, consult the relevant MSDS.

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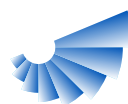
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