

HYDREX

AR 3x6

Newtonian low viscosity FFFP-AR foam concentrate for 3% on hydrocarbon and 6% on polar liquid fires

Description

HYDREX AR 3x6 is superior alcohol resistant film forming fluoroprotein foam concentrate (FFFP-AR) for extinguishing flammable hydrocarbon and polar solvent liquid fires. It is based on hydrolyzed protein, fluorosurfactants, hydrocarbon tensides, Fluoro polymer and glycol ethers.

HYDREX AR 3x6 is a foam concentrate which forms a film forming fluoroprotein foam when applied at 3% on hydrocarbons. Applied at 6% on polar liquids, it forms an alcohol-resistant fluoroprotein foam. Unlike other alcohol resistant foam concentrates, it has the low viscosity of a regular protein foam concentrate.

PERFORMANCE

Normal FFFP foam dissolves in polar solvents such as acetone. Those foam concentrates which form foams to extinguish polar solvents commonly contain gums. Their viscosity is therefore high which leads to problems in inducting the foam concentrate into water, particularly at low temperatures. HYDREX AR 3x6 has undergone a long and careful development to create a low viscosity alcohol resistant foam concentrate.

On unleaded fuel with polar additives, it provides important advantages towards polymeric foams. As polymeric foams cannot form a polymeric layer on unleaded fuel, their fire performance is limited. HYDREX AR 3x6 does not need to form a polymeric layer to extinguish these fires. The foam itself is alcohol-resistant, even without a polymeric layer. A further advantage towards protein based polymeric foam concentrates is the fact that there are never stratification problems with HYDREX AR 3x6.

On non-polar liquid fires, HYDREX AR 3x6 forms an aqueous film. In case of injuries of the foam blanket it shows very good healing capabilities closing any defect very quickly.

HYDREX AR 3x6 can be used by most conventional foam equipment such as:

- Balance pressure pump proportioning equipment
- Bladder tank and related fixed proportioners
- Around-the-pump proportioners from Fire trucks
- Fixed and portable In-line venturi type inductor
- Fixed or handline nozzles or Monitors with fixed induction/pick up

Application

HYDREX AR 3x6 is the ideal fire fighting foam to use in high risk situations where hydrocarbons (such as crude oil, gasoline, diesel fuel, aviation kerosene) and/or polar solvents (such as alcohols, ketones, esters, and ethers) are stored, processed, or transported.

It is used extensively by industrial fire teams. Typical applications include hydrocarbon storage tanks, process areas, warehouses, road/rail loading racks, power stations, jetties terminals, and offshore platforms.

HYDREX AR 3x6 provides a vapor suppressing foam blanket on spills of hazardous liquids.

As with any foam HYDREX AR 3x6 is best when applied gently onto the burning liquid surface. However, its exceptional resistance to fuel contamination enables it to withstand vigorous mixing with hydrocarbon fuel. This makes it ideal for forceful application when applied by Fixed or mobile monitors or through sub-surface injection on hydrocarbon storage tank fires.

The foam produced by HYDREX AR 3x6 extinguishes hydrocarbon fires when proportioned at 3% directly (Type III) and indirectly (Type II).

Sea water can be used without an increase in the application rate.

A common application with (foam compatible) Dry Chemical Powders to achieve a maximum fire performance is possible.

Approvals

HYDREX AR 3x6 is listed according to test protocol:

- GESIP 99/04 @ 2 L/m²/min



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Storage and shelf life

HYDREX AR 3x6 has an operational temperature range of -10°C and $+60^{\circ}\text{C}$. Limited exposure to temperatures above $+60^{\circ}\text{C}$ does not affect the firefighting performance.

When stored in the packaging supplied (polyethylene drums or pails) within the temperature limits specified, or in equipment recommended by the manufacturer as part of the foam system, the shelf life of HYDREX FFFP-AR foam Concentrate is generally ≥ 10 years.

If the product is frozen during storage or transportation, thawing will render the product completely usable.

The factors affecting shelf life and stability for SABO Foam agents are discussed in detail in our Technical Bulletin for storage recommendation.

Safety & handling

See our corresponding "Material Safety data sheet".

Compatibility

There are no specifications or standards which address the subject of compatibility of different manufacturer's brands of film forming fluoroprotein alcohol resistant foam concentrates. In an emergency or if the manufacturer has supporting test data to substantiate that the mixture meets the same requirements as the individual component concentrates, they may be mixed together in the same storage vessel.

Different types of foam concentrates, i.e., AFFF and fluoroprotein base should not be mixed under any circumstances.

Quality insurance

HYDREX AR 3x6 – as with all TYCO Products – is subject to a very stringent quality controls throughout all stages of production, from incoming raw to the complete product and is manufactured in an ISO 9001:2000 controlled facility. Quality assurance is therefore guaranteed.

Typical properties

HYDREX AR 3x6	FFFP AR	
Fire Classes	B	
Shape and color	Brown, clear liquid	
Smell	Characteristic, protein	
Density (20°C)	1,16 \pm 0.02 [g/ml]	
pH (concentrate, 20°C)	7,0 \pm 0.5	
Viscosity 20°C (ISO 3104)	10.0 \pm 4.0 [mm ² /s]	
Sediment (EN 1568)	$\leq 0,25$ [%]	
Admixing ratio	3 [% Vol.] AFFF	6 [% Vol.] AR
Expansion Ratio (EN 1568-3)	/	$\geq 7,0$
Drain Time 25%, (20°C, EN 1568-3)	/	$\geq 2:30$ [min:s]
Drain Time 50%, (20°C, EN 1568-3)	/	$\geq 4:00$ [min:s]
Expansion	Low, Medium	
Freezing Point	≤ -15 [°C]	
Pour Point	≤ -12 [°C]	
Recommended storage/ Usage temperature	-10 to $+60$ [°C]	

Ordering information

HYDREX AR 3x6 can be supplied in cans, drums, totes or Bulk (contact us for Bulk delivery).

Part No. F416328C2	20 Liter can
Part No. F416328C1	25 Liter can
Part No. F416328D1	200 Liter drum
Part No. F416328T1	1000 Liter tote
Part No. F416328B1	Bulk

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