



A Tyco International Company

# TOWALEX ARC 3x6 AFFF-AR 3% or 6% FOAM CONCENTRATE

- 6% alcohol resistant concentrate on Polar solvents
- 3% on Hydrocarbons
- UL-162, DIN and GOST-R approved
- Freeze protected to  $-15^{\circ}\text{C}$
- For use with aspirating and non-aspirating discharge devices
- Suitable for use with fresh, salt or hard water
- Supplied ready to use in 20, 25 200 or 1000 litres packaging



## DESCRIPTION

TOWALEX ARC 3x6 is a high quality synthetic foam concentrate based on surfactant, fluorosurfactant, polymer and fluoropolymer. The foam forms a film of water on hydrocarbons and in addition a polymer film on polar solvents.

TOWALEX ARC 3x6, alcohol resistant and aqueous film forming foam (AFFF) concentrate, is ideally suitable for extinguishing fires involving polar and/or foam-destroying liquids such as alcohols, esters, ketones, amines and also hydrocarbon fires involving petrol, gas turbine, fuel or oil.

It is intended for use as a 6% proportioned solution on polar solvent and at 3% on hydrocarbon fuels in fresh, salt or hard water. TOWALEX ARC 3x6 has also been successfully tested and approved at a reduced 5% induction ratio on polar solvents.

## PERFORMANCE

For fires involving foam-destroying liquids we recommend a proportioning rate of 6% (v/v) of TOWALEX ARC 3x6 and a gentle soft application of the foam, for example using foam deflectors so that the polymer film can become fully effective.

TOWALEX ARC 3x6 is especially suitable to extinguish rapidly large surface hydrocarbon fires; the foam has excellent flow properties at a proportioning rate of 3% (v/v) and can be applied directly by forceful application to the fuel surface.

## APPLICATION

TOWALEX ARC 3x6 can be used by most conventional foam equipment such as:

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

TOWALEX ARC 3x6 is used wherever it is essential to extinguish a fire rapidly to save human lives and to avoid high material losses. Examples for its use are Chemical plants, refineries, tank farms, ships, drilling rigs . Its use is also widely recognized into sprinkler installations.

TOWALEX ARC 3x6 is also very effective when subsurface injection is used to fight tank fires. Due to its fluorinated surfactants content the foam absorbs only small quantities of hydrocarbons.

TOWALEX ARC 3x6 is compatible with all foam-compatible dry chemical extinguishing powders. Due to the velocity of the dry chemical discharge, care must be taken not to submerge the polymeric membrane below the fuel surface.

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

## APPROVALS

The fire performance of TOWALEX ARC 3x6 is measured and listed according to:

- UL-162 latest standard
- DIN 14 272
- GOST-R (Russia)
- NF-S 60210/ 60220 / 60225
- GESIP 99/02 and 99/04 @ 2 l/m<sup>2</sup>min



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## STORAGE AND SHELF LIFE

TOWALEX ARC 3x6 has an operational temperature range of -12°C and +60°C. Limited exposure to temperatures above +60°C does not affect the firefighting performance.

When stored in the packaging supplied (polyethylene drums or cans) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified, the shelf life of TOWALEX ARC 3x6 Concentrate is about 20-25 years.

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

If the product is frozen during storage or transportation, the concentrate should be thawed and used without any degeneration of the performance.

## SAFETY AND HANDLING

See our corresponding "Material Safety data sheet".

## MATERIALS OF CONSTRUCTION COMPATIBILITY

Tests have been performed with TOWALEX Concentrate verifying its compatibility with standard carbon steel "black" pipe and pipe manufactured from various stainless steel or brass compounds.

Alternative pipe, fittings, and valves may be used in some cases if acceptable to the customer and/or the authority having jurisdiction.

Refer to our Technical Bulletin, addressing acceptable materials of construction for use with SKUM foam concentrates.

Galvanized pipe and fittings must not be used in areas where undiluted concentrate will contact them since corrosion will result.

For more information regarding specific guidelines about construction materials, please email [info@skum.com](mailto:info@skum.com)

## QUALITY ASSURANCE

TOWALEX ARC 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 9001:2008 controlled facility. Quality assurance is therefore guaranteed.

## TYPICAL PROPERTIES

TOWALEX ARC 3x6	AFFF-AR 3x6	
Fire Classes	A and B	
Shape and color	Pale yellow clear liquid	
Smell	Characteristic, surfactant-alike	
Density (20°C)	1.06 ±0.02 [g/ml]	
pH (concentrate, 20°C)	7.5 ±0.5	
Viscosity 20°C (*)	1800 ±200 [Cps]	
Sediment (EN 1568)	≤ 0.1 [%]	
Admixing ratio	3 [% Vol.] AFFF	6 [% Vol.] AR
Expansion Ratio (EN 1568-3)	≥ 7.0	≥ 8.0
Drain Time 25%, (20°C, EN 1568-3)	≥ 7:00	≥ 15:00 [min:s]
Drain Time 50%, (20°C, EN 1568-3)	≥ 11:00	≥ 25:00 [min:s]
Expansion	Low, Medium, (High)	
Freezing Point	≤ -18[°C]	
Pour Point	≤ -15 [°C]	
Recommended storage/Usage temperature	-12 to +60 [°C]	
* Brookfield speed 60 rpm, spindle #3		

## ORDERING INFORMATION

TOWALEX ARC 3x6 can be supplied in cans, drums, totes.

Part No. F116115C1	25 Liter can
Part No. F116115D1	200 Liter drum
Part No. F116115T1	1000 Liter tote

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