



## TECHNICAL DATA

### NP426 POLYURETHANE FOAM

#### Product Description

NP426 is a two-component polyurethane foam specifically formulated to stabilise large structures containing electronics. Currently this system is used to physically and electronically stabilise metal detectors. The slow cure and low exotherm will allow large volumes to be filled, whilst maintain the adhesion to the outer box structures. The cured foam is tougher than is usual in PU foams.

#### Features

- \* Exceptional long rise time
- \* Very low exotherm
- \* Low thermal shrinkage on cure
- \* Excellent adhesion to a wide range of substrates
- \* High density providing greater structural support

#### Typical Uncured Physical Properties

Property	Base	Hardener
Viscosity (mPas)	7000	250
Colour	Straw	Brown
Specific Gravity	0.98	1.23
Mix Ratio (by weight)	100	87



## Typical Cured Properties

Property	Result
Cream Time	4 minutes
Rise Time	28 minutes
Tack Free Time	30-40 minutes
Cure Time	5 hours
Foam SG	0.4 to 0.45
Apparent Density	380 Kg/m <sup>3</sup>
Performance Test	Seal will withstand a 3m head of water without leakage
Volume Increase	2.6 times

Note: The above technical information and data should be considered representative or typical only and should not be used for specification purposes.



## Directions for use

For high strength structural bonds, paint, oxide films, oils dust and all other contaminants must be completely removed. The degree of surface preparation will ultimately determine the strength of the bond.

When decanting the base from containers prior to mixing it is best to ensure that it has been stirred thoroughly first as sedimentation is possible.

Mixing of the base and hardener is best done mechanically, but can be done using a spatula in small quantities. In both situations vigorous mixing is essential, the aim being to whisk the base and hardener together for at least one minute, including as much air into the mix as possible.

If the casing to be filled presents a considerable heat sink to the NP426 system, then the casing should be heated prior to adding the resin. Ideally, the casing should be between 30 and 40°C.

The maximum mix size to be added to the unit at one time is 19 kg. This should be done in one mix, and allowed to gel and cool before another mix is added. The time allowed for cooling is dependent upon the unit characteristics, but the mix should not be added when an earlier mix has not cooled below 30°C.

A second mix should not be added while the first mix is still liquid.

The inner surface of the unit should not be dirty. Handling and machining will leave residues that will destroy the adhesion of the foam (even when not really visible). Cleaning with low volatility organic solvents after abrading the surface ensures the best results.

There is always a slight expansion of the foam late-on in the cure cycle. This means that the leading edge of the expanding foam will move slightly when it is close to the gel point. If the upper surface of the foam is to adhere properly then an excess of foam is necessary to allow freshly foamed material to contact the upper edges at an early stage in the curing.



## Surface Preparation

### STEEL and ALUMINIUM:

1. Wipe with solvent such as acetone, isopropanol or ALH Systems WET/DRY Wipes.
2. Shot blast with fine grit abrasive.
3. Wipe again with solvent to remove loose particles.

### WOOD:

1. Ensure surface is clean and dry and free of loose particles.

### PLASTICS/RUBBER:

1. Wipe with solvent such as isopropanol or ALH systems WET/DRY Wipes.
2. Abrade with fine grit abrasive paper.
3. Wipe again with solvent.

## Storage and Shelf Life

Store between 5-30°C for up to 12 months.



## Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. All Products should be used in accordance with your own COSHH Assessments. For additional health and safety information, call 01373 858234.

## Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that ALH believes are reliable, but the accuracy or completeness of such information is not guaranteed.

## Product Use

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