

# Plurasafe<sup>®</sup> BCF

## Brake Coating Fluid

### Description

Plurasafe Brake Coating Fluids (BCF) are high quality synthetic products formulated from high molecular weight polyalkylene glycols, anti-oxidant and anti-rust additives, for the prevention of corrosion to brake components. Brake system components will corrode and deteriorate if stored in humid conditions, to prevent this occurrence Plurasafe BCF's provide a protective film of excellent durability.

### Application

In addition to excellent humid corrosion protection, brake coating fluids need to comply with some viscosity and rubber swelling requirements which depend upon the product application such,

- as an assembly fluid (the parts are dipped into the fluid prior to being assembled to make the various system units i. e. master cylinder, wheel cylinder, etc.)
- as a testing fluid (the various brake components – master cylinder, wheel cylinders – are tested hydraulically with a testing fluid and then drained before shipping or storage).

The products in the Plurasafe range designed for high performance in these application areas are Plurasafe BCF 7 and Plurasafe BCF 11, both have similar compositions and differ only in their viscosity characteristics.

## Typical Properties

Properties	Unit	BCF 7	BCF 11	Method
Viscosity at 40 °C	mm <sup>2</sup> /s	65	250	ASTM D 445
Ash	%wt	0.01	0.01	ASTM D 128
Water content	%wt	0.1	0.1	ASTM D 1744
Flash point	°C	240	230	ASTM D 92

Elastomere Compatibility		Unit	BCF 7	BCF 11	Method
<b>SBR</b>	Volume increase	%	8	-1	3 days 70 °C
	Hardness increase	Points	-1	-1	
<b>SBR</b>	Volume increase	%	12	1	3 days 120 °C
	Hardness increase	Points	-6	-3	
<b>EPDM</b>	Volume increase	%	0	-1	3 days 70 °C
	Hardness increase	Points	0	-1	
<b>EPDM</b>	Volume increase	%	0	-1	3 days 120 °C
	Hardness increase	Points	-2	-1	

Corrosion Tests		Unit	BCF 7	BCF 11	Method
Cast Iron (GG25)	3 cycles		no	no	DIN 50017
	9 cycles		some corrosion	some corrosion	
Aluminium	3 cycles		no	no	DIN 50017
	9 cycles		no	no	

### Test specimens

- CAST IRON (GG25) – 75 x 20 x 1 mm as used in the Swiss Army Brake Fluid Corrosion Test (pt 19 of the ALN.NSA9150-335-4274 specification.)
- ALUMINIUM – as in the SAE J 1703 specification for brake fluids.

The test specimens were immersed for 1 minute in the fluids, then suspended vertically, to allow the fluid to drain overnight, then suspended vertically in a humidity cabinet.

### Storage stability

The product in original package can be stored for at least 2 years at ambient storage conditions and temperature without any deterioration.

### Safety

When using this product, the information and advice given in our **Safety Data Sheet** should be observed. Due attention should also be given to the **precautions** necessary for handling chemicals.

**Note**

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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