

# PC504/66 Product Characteristics

## Ultraseal PC504/66 Sealant

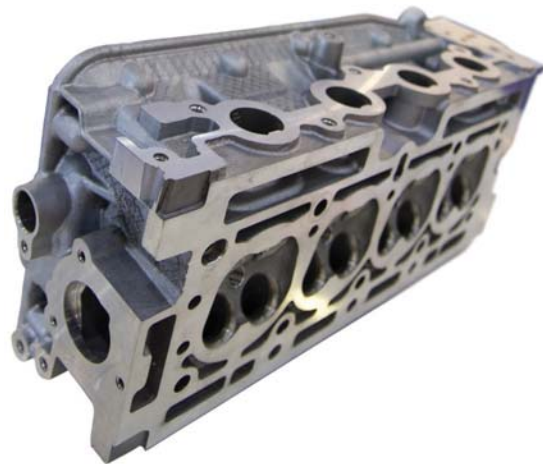
The excellent sealing performance of PC504/66 Sealant is derived from the following product characteristics:

- Low shrinkage on polymerisation (curing from a liquid into a solid) giving excellent void filling capability
- Low viscosity for fast and deep penetration into even fine micro porosity
- High vacuums can be utilised during the vacuum impregnation cycle due to the non-solvent/non-volatile nature of the sealant.
- Tough and flexible in polymerised state providing long term resistance to vibration and temperature/pressure cycling applications.
- Good adhesion to the walls of the cavity
- High tolerance to contamination, which could otherwise affect performance.



The demand for sealants to withstand elevated temperatures for longer periods is becoming of increasing importance with the continuing emphasis by automotive manufacturers on smaller engines with greater power output. Ultraseal PC504/66 Sealant has been developed with this criteria foremost and has already passed stringent temperature trials on aluminium cylinder heads for several manufacturers.

The performance of Ultraseal PC504/66 Sealant is excellent at temperatures ranging from -76°C to +200°C). Further temperature trials carried out by customers in certain applications have shown PC504/66 Sealant to maintain pressure resistance in aluminium castings after being subjected to temperatures in excess of 250°C for 24 hours.



# Quality as Standard

Ultraseal puts all products through internationally accepted test conditions. Our rigorous laboratory testing ensures that our sealants deliver substantially superior qualities and also carry the US Military Specification MIL-I-17563C approval, therefore

our customers can have the confidence that our quality statements are approved by independent accreditation (outlined in following tables) and we can provide substantiated evidence that our products will work effectively in tough service environments.

## US Military Specification MIL-I-17563C Class 1 & 3 Approval

Environment	Time	Temperature	Result
Water	14 days	100°C (boiling)	No Leak
Oil	14 days	99°C (+/- 2.8°C)	No Leak
Hydrocarbon Fluid	14 days	23°C (+/- 2°C)	No Leak
Carbon Removal Fluid	30 minutes	23°C (+/- 2°C)	No Leak
Lubricating Oil	48 hours	121°C (+/- 2°C)	No Leak
Turbine Fuel	48 hours	23°C (+/- 2°C)	No Leak
Ethylene Glycol	14 days	149°C (+/- 2.8°C)	No Leak
Hydraulic Fluid	14 days	99°C (+/- 2.8°C)	No Leak
Fuel	48 hours	23°C (+/- 2°C)	No Leak
Diester Grease	48 hours	23°C (+/- 2°C)	No Leak
Sulphuric Acid (18%)	2 hours	23°C (+/- 2°C)	No Leak
Stoddard Solvent	48 hours	23°C (+/- 2°C)	No Leak
Ethyl Alcohol	14 days	23°C (+/- 2°C)	No Leak

Impregnated US MIL Test Rings. Test pressure 3.5 bar (3.57kg/cm2)



## Ultraseal International Additional Tests

Environment	Time	Temperature	Result
Engine Oil	14 days	150°C	No Leak
Brake Fluid	14 days	150°C	No Leak
Ethylene Glycol	14 days	150°C	No Leak
Hydraulic Fluid	14 days	150°C	No Leak
Unleaded Petrol	14 days	25°C	No Leak
Water	14 days	100°C	No Leak
PAG Oil	14 days	150°C	No Leak
R134a Refrigerant	6 months	Ambient -10°C to 35°C	No Leak
R134a Refrigerant	6 months	150°C*	No Leak

\*test completed by an external global manufacturer of air compressors

## Technical Data – Ultraseal PC504/66 Sealant

Liquid Phase:

<b>Appearance</b>	Clear pale straw liquid	<b>Odour</b>	Mild methacrylate
<b>Viscosity (20°C Seta Zahn No 1)</b>	32 - 34 seconds	<b>S.G. 20°C</b>	1.005 – 1.015
<b>Flash point (Twin Pack (uncatalysed))</b>	96°C	<b>Gel time (0.8% DB42, degassed)</b>	80 sec – 180 sec
<b>Contamination tolerance:</b>	Good	<b>Washability</b>	Good
<b>Pot life: (Under normal operating conditions)</b>	Indefinite	<b>Shelf life: Under normal storage conditions</b>	12 mths (twin pack) 6 mths (single pack)
<b>Temperature range: Cured phase</b>	-76 / +200°C	<b>US MIL-I-17563C Approved</b>	Yes