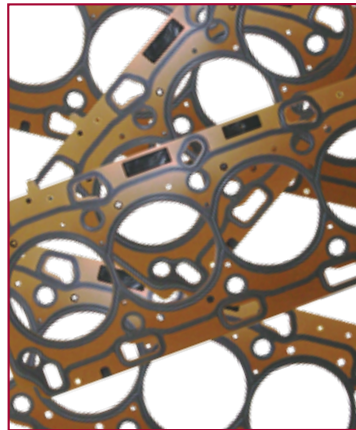


# Silicones Solutions for Silk-screening, Varnishing & Impregnating

- ◆ Cylinder head gasket is probably the most famous gasket in an automotive engine, and it requires a perfect reliability. Bluesil™ Resins range has been the standard for decades on impregnating and varnishing fibrous Cylinder Head Gaskets.
- ◆ We have been involved during the last decade in the technological breakthrough to the Multi-Layers Steel (MLS) Cylinder Head Gaskets and Bluesil™ Resins as well as Bluesil™ ESA RTV -2 ranges now used.
- ◆ More specifically, Bluesil™ ESA RTV -2 range are used for the shoulders applied using silk-screening process and Bluesil™ new UV curing Resins are increasingly being used to varnish these new generation of Cylinder Head Gaskets.



## **BENEFITS** BLUESIL™ RESINS & ESA

- ◆ High adhesion
- ◆ High thermal stability
- ◆ Good resistance to lubricating fluids
- ◆ Permanent release effects

# BLUESIL™ RESINS & ESA

	Shoulder	Impregnating		Varnishing			
	Solvent free	Solvent based	Solvent free	Solvent based	Solvent free		
<b>Curing type</b>	PA	PC	-	PC	PA		UV
<b>Grade</b>	ESA 7244A&B	20 B	H 68	20 B	21385 A	21385 B	UV1 V350
<b>Solvent</b>	-	Xylene	-	Xylene	-	-	-
<b>Dry content (%)</b>	100	83	100	83	100	100	100
<b>Viscosity (mm<sup>2</sup>/s)</b>	95000/35000	700	25	700	4 000	8 500	350
<b>Curing</b>	10' at 150°C	15' at 170°C	-	15' at 150°C	5' to 10' at 150°C		3 s at 0.04/0.07 J/cm <sup>2</sup>
<b>Catalyst</b>	ratio 1:1	Sic 15 or Cata 11011	Titanate	Sic 15 or Cata 11011	Cata 11091		Cata UV 211
<b>Koenig hardness</b>	50 ShA	40	>60	40	45	40	40
<b>Bath stability</b>	16 h	>8 h	~ 4 h	>8 h	>15 d	>15 d	>8 d
<b>Processing</b>	Silk-screening	Immersion	Immersion	Roll	Roll		

PC = polycondensation - PA = polyaddition - UV = UV cationic polymerization

## BLUESIL™ ESA 7244 A&B

- ◆ Bluesil™ ESA 7244 A&B is solventless, quick curing, self levelling, RTV-2 elastomer with good thermal conductivity. Thanks to its low viscosity, Bluesil™ ESA 7244 A&B is easy to apply by silk-screening process, especially for cylinder head gasket.
- ◆ After polymerization, Bluesil™ ESA 7244 A&B is transformed into a flexible adhesive film which is particularly resistant to cooling fluids and engine lubricants. Moreover, the outstanding resistance to high temperature ensures that the product carries out its functions for a long time. Bluesil™ ESA 7244 A&B is intended for bonding metal, engineering plastics and epoxy surface in various automotive industry: cylinder head gaskets, starters, alternators,...

## BLUESIL™ RESINS

- ◆ Resins are relatively low molecular weight polymers with a three dimensional branch-chained structure. They are available solventless or diluted in solvent depending on the customer process with 3 different curing type: polycondensation, polyaddition or UV curing.
- ◆ After polymerization, Bluesil™ Resins produce an elastomeric coating with high adhesion on many substrates, high engine fluids resistance (lubricant, cooling liquid, etc...), outstanding thermal stability up to 250°C and permanent release effect. Bluesil™ Resins offers high performances for impregnating and varnishing Cylinder Head Gaskets.



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