

# ADDcure® 91618

## Modified cycloaliphatic curing agent

**General** ADDcure® 91618 is a low viscosity cycloaliphatic curing agent with good flow, good yellowing resistance and compatibility

**Applications** ADDcure® 91618 can be used as a good general purpose curing agent for paints and enamels with low VOC, for civil engineering and anticorrosion applications. Compliant with the Solvent Emissions Directive when used with suitable epoxy resins such as ADDpoxy® 828, LR2257 LR2783 & LR 1140B. These coatings may be used for pipes, pultrusion, flooring systems, grouts, mortar floors, trowelling compounds, and impregnation systems as well as more traditional anti corrosive primers and direct to metal one coat systems.

**Properties** Due to the low viscosity and improved stability ADDcure® 91618 is a suitable epoxy resin curing agent for use in formulating compliant systems yielding,

- Very good processing properties
- Good mechanical performance
- Good surface penetration / flow
- Good chemical & corrosion resistance

Specific key data	Property	Value	Test method
	Appearance	Clear Liquid	Visual
	Color Gardner	2 max	
	Amine value	260 – 300 mg KOH/g	
	Active Hydrogen Equivalent Weight	114	
	Mix ratio (with epoxy 190 EEW)	60	
	PHR Pot life	50-	
	60'		
	Viscosity at 25 °C (77 °F)	350 – 650 mPa.s	

Typical Key Data	Property	Value	Test method
	Density at 25°C	1.08 g/cm <sup>3</sup>	ISO 1675
	Flash point	≥ 138 °C	ISO 2719

*Typical key data are spot-checked; the values are typical for the product and are indicated for information only. The values are not included in certificate of analysis.*

As-supplied form	Liquid
Odour	Yes
Shelf life (at storage temperature 10 - 40°C)	12 months in original container

(See expiry date on original container) Low temperature may induce haze & Increase viscosity, both reversible as temperature is increased.

Disposal Regular procedures approved by local authorities

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**Packaging & Storage**      ADDcure<sup>®P</sup> 91618 is supplied in bulk, IBC's and in 220 kg drums. This product should be stored in a dry place, preferably in the sealed original container; at temperatures between 10°C and 40°C (temperatures should never be allowed to drop below 0°C). The product may absorb moisture and CO<sub>2</sub> if not sealed correctly.

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**Handling/Safety Precautions**      Mandatory and recommended industrial hygiene procedures should be followed whenever our products are being handled and processed. For additional information please consult the corresponding product safety data sheets.

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**Note**      ADDpoxy<sup>®</sup> is a registered trademark of JANA or an affiliate thereof.

### GUIDE FORMULATION

Solvent free primer finish for direct to metal application – application by airless spray

#### PART A

ADDpoxy <sup>®</sup> 828	52.00	<a href="http://www.jana-ksa.net">www.jana-ksa.net</a>
Nanoguard ACP	7.00	<a href="http://www.sensopolis.com">www.sensopolis.com</a>
Snowcal 60	11.00	<a href="http://www.omya.com">www.omya.com</a>
Cristal 122	17.00	<a href="http://www.cristalglobal.com">www.cristalglobal.com</a>
Sensowhite 4	8.50	<a href="http://www.sensopolis.com">www.sensopolis.com</a>
ViaTalc prime	3.50	<a href="http://www.sibelco.com">www.sibelco.com</a>
Easigel	1.00	<a href="http://www.scprod.com">www.scprod.com</a>

#### PART B

ADDcure <sup>®</sup> 91618	32.00	<a href="http://www.jana-ksa.net">www.jana-ksa.net</a>
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Typical data :

Pot life	30-40'
Tack free time @100 µm	2 h
Full curing 200 µm	4-7 days dependent on ambient temperature

This formulation had been used for food contact tests; viscosity in application could be reduced by small percentage (max 3) of methoxypropanol; in this case, but note that pot life may be reduced.

### CHEMICAL RESISTANCE

ADDcure<sup>®</sup> 91618 was mixed with the following epoxy resins:

- ADDpoxy<sup>®</sup> 828, bisphenol-A based epoxy resin, 100%
- ADDpoxy<sup>®</sup> LR 2254, bisphenol-A based epoxy resin modified with C12-C14 reactive diluent
- ADDpoxy<sup>®</sup> LR 2282, bisphenol-F based epoxy resin, 100%

The following table shows the % weight gain or loss, after 21 days of immersion in various chemical, at 25°C.

	<b>ADDpoxy® 828</b>	<b>ADDpoxy® LR 2254</b>	<b>ADDpoxy® LR 2282</b>
Distilled water	0.84	0.81	0.88
Ethanol 15%	1.02	0.98	0.98
Ethanol 95%	4.98	7.22	5.02
Xylene	0.54	6.20	0.45
MIBK	2.66	3.21	2.70
Butyl Acetate	5.38	20.88	2.65
Gasoline	0.11	0.20	0.18
Ammoniac 10%	0.97	0.67	0.89
Sulphuric acid 10%	1.01	1.42	1.36
Sulphuric acid 50%	0.50	0.41	0.45
Nitric acid 10%	1.41	1.03	1.36
Phosphoric acid 10%	1.76	2.28	2.15
Acetic acid 10%	2.21	1.23	1.59
Lactic acid 10%	1.44	2.31	1.29
Formaldehyde 10%	0.78	0.72	0.75

### **MECHANICAL RESISTANCE**

ADDcure 91618 was mixed with the following epoxy resins:

- ADDpoxy® 828, bisphenol-A based epoxy resin, 100%

	<b>Data</b>
<b>COMPRESSIVE (UNI 4279)</b>	
Compressive strength, N/mm <sup>2</sup>	70
Compressive modulus, N/mm <sup>2</sup>	2000
<b>FLEXURAL (UNI 7219)</b>	
Flexural strength, N/mm <sup>2</sup>	59
Flexural modulus, N/mm <sup>2</sup>	2500
<b>TRACTION (ASTM D 638)</b>	
Tensile strength, N/mm <sup>2</sup>	47
Elongation at break, %	1,9
<b>HDT °C (UNI 4281)</b>	59

<b>PHR</b>	60
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**HANDLING AND STORAGE**

ADDcure<sup>®</sup> curing agents may absorb moisture and CO<sub>2</sub> if drums are not well closed.

ADDcure<sup>®</sup> curing agent should be stocked in dry place at a temperature between 5 and 35 °C; in this condition, shelf life is at least 1 year, from the date of manufacture, if in the original sealed container.

Lower temperature could increase viscosity (reversible) and haziness.

ADDcure<sup>®</sup> curing agents and epoxy resin must be mixed just before application; avoid contact with eyes and skin, do not inhale vapours, wear protective clothes, glasses and gloves. Use only with adequate ventilation.

For further information, refer to SAFETY DATA SHEET.

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ISO 9001 : 2000



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