

# A total solution to high performance adhesive bonding

## One stop shop technology for structural bonding of plastics

### • Fully comprehensive range of structural adhesives

The Araldite® 2000 PLUS range adhesives for plastics can be used under a broad spectrum of processing and curing conditions and can meet the most demanding performance requirements. The range includes leading-edge epoxy, polyurethane and toughened acrylic technologies providing a complete solution to structural bonding.

### • Broad range of easy to use packing sizes

Araldite® 2000 PLUS adhesives are available in a wide range of cartridge systems and small packs for convenient handling. These options allow the user to accurately deliver a measured quantity of adhesive with minimum wastage.

### • Local availability

No matter where you are in the world, Huntsman's strong global network means Araldite® 2000 PLUS adhesives can be supplied locally. Our operations span 30 countries and are supported by an established worldwide distribution framework.

## Setting the industry standard for technical support

### • Comprehensive telephone technical support

Huntsman sets the standard for technical support. Its industry experts can provide advice at a local level and can rapidly respond to customer challenges.

### • On site technical assistance

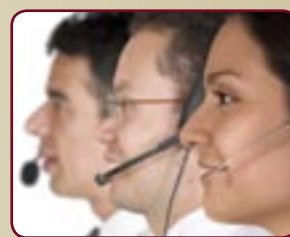
Our network of technical support staff can give on site demonstrations and provide expert advice to find the best solution for a range of technical challenges.

### • Access to significant case history database

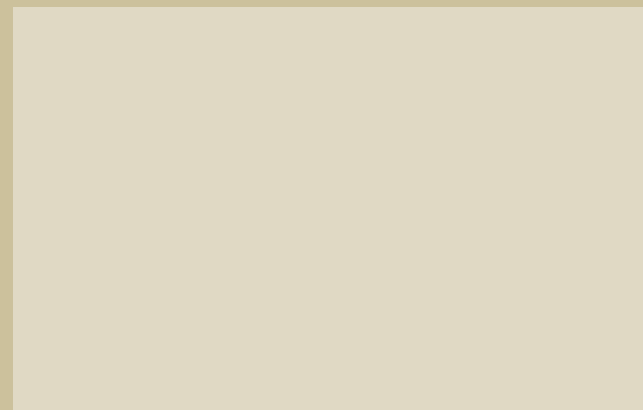
The Araldite® 2000 PLUS range can be used across a vast range of structural engineering applications. Sample case studies from our extensive library available on our website [www.araldite2000plus.com](http://www.araldite2000plus.com).

### • Additional reference guides available

Araldite® has been a leading adhesive brand for 60 years and our experience is reflected in our comprehensive technical support packages which can be accessed through our website and provide a complete solution to all adhesive processing and performance needs.



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[www.araldite2000plus.com](http://www.araldite2000plus.com)

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Enriching lives through innovation

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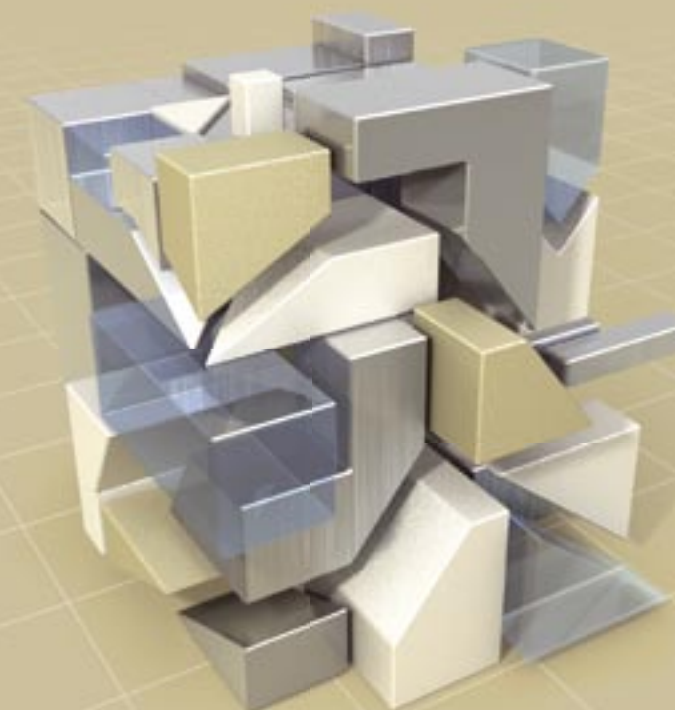
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Design: www.zygmund.fr

# Araldite® 2000+

Strength in bonding

bonding **plastics**  
to plastics and dissimilar substrates



# The appropriate solution for Bonding plastics to any substrates

Huntsman's recognised expertise in research and development allows us to offer a uniquely wide range of innovative solutions all of which are backed by strong technical support and excellent levels of customer service. Araldite® 2000 PLUS adhesives are designed to satisfy all your plastic bonding requirements.

	2011		2010-1		2012	2013		2014-1*				2015				2021	2022	2047**	2018			2040	2041-1		2055
	Multi purpose	Rapid cure		Chemical/temperature resistance		Toughened				Flexible			Rigid												
Chemical type	EP	EP	EP	EP	EP	EP	MMA	MMA	MMA	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	PUR	
Fast curing		■	■				■	■	■																
Gap filling				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

## BONDING PLASTICS TO PLASTICS

	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055
GRP	●	○	●	●	●	●	●	●	○	●	●	●	●
CFRP	●	●	●	●	●	●	●	●	○	○	○	●	○
SMC	●	○	○	●	●	●	○	○	○	●	○	●	●
ABS	●	○	○	○	○	○	○	○	○	○	○	○	○
PVC	○	○	○	○	○	○	○	○	○	○	○	○	○
PMMA	○	○	○	○	○	○	○	○	○	○	○	○	○
Polycarbonate	○	○	○	○	○	○	○	○	○	○	○	○	○
Polyamides	●	○	○	○	○	○	○	○	○	○	○	○	○

## BONDING PLASTICS TO METALS

	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055
Ferrous metals	●	○	●	●	●	●	●	●	○	○	○	○	○
Stainless steel	●	●	●	●	●	●	●	●	○	○	○	○	○
Aluminium	●	●	●	●	●	●	●	●	○	○	○	○	○
Copper	●	●	●	●	●	●	●	○	○	○	○	○	○
Brass	●	●	●	●	●	●	●	○	○	○	○	○	○
Zinc/Galvanised metal	●	●	○	●	●	○	○	○	○	○	○	○	○

## BONDING PLASTICS TO NON METALS

	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055
Rubbers	○	○	○	○	○	○	○	○	○	○	○	○	○
Glass	○	○	○	○	○	○	○	○	○	○	○	○	○
Ceramics	●	○	●	●	○	○	○	○	○	○	○	○	○
Wood	●	●	●	●	●	●	○	○	○	○	○	○	○

EP Epoxy / MMA Methyl Methacrylate / PUR Polyurethane • ● Excellent / ○ Good / ○ Moderate



# Processing, performance and packaging data

Araldite® 2000 PLUS is a trusted brand – with more than 60 years experience in developing engineering adhesives.



Bonding plastics	Multi purpose		Rapid cure		Chemical / temperature resistance		Toughened				Flexible			Rigid
	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055	
Chemical type	EP	EP	EP	EP	EP	EP	MMA	MMA	MMA	PUR	PUR	PUR	PUR	
Product description	<ul style="list-style-type: none"> <li>Multi purpose</li> <li>Long working life</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Fast curing</li> <li>Toughened</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Fast curing</li> <li>General purpose</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Metal coloured paste</li> <li>Suitable for vertical applications</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Grey paste</li> <li>High temperature and chemical resistance</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Toughened paste</li> <li>Ideal for GRP, SMC and dissimilar substrates</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Rapid curing</li> <li>High peel strength</li> <li>Multi purpose</li> </ul>	<ul style="list-style-type: none"> <li>Good sanding properties</li> <li>Ideal for bonding thermoplastics</li> </ul>	<ul style="list-style-type: none"> <li>Gap filling</li> <li>Requires minimal surface treatment</li> </ul>	<ul style="list-style-type: none"> <li>Good UV stability</li> <li>Ideal for bonding thermoplastics</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for bonding plastics</li> <li>Low shrinkage</li> <li>Ideal for thick bond lines</li> </ul>	<ul style="list-style-type: none"> <li>Black colour</li> <li>Ideal for bonding plastics especially SMC or polyamides</li> <li>Low shrinkage</li> </ul>	<ul style="list-style-type: none"> <li>Gap filling</li> <li>Long open time</li> <li>Resists weathering and humidity</li> <li>Low shrinkage</li> </ul>	

## PROCESSING DATA

	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055
Viscosity (at 23°C)	30-45 Pa.s	Apr. 80 Pa.s	25-35 Pa.s	Thixotropic	Thixotropic	Thixotropic	Apr. 45 Pa.s	Apr. 60 Pa.s	Apr. 70 Pa.s	Apr. 8 Pa.s	Apr. 50 Pa.s	Apr. 55 Pa.s	Thixotropic
Useable life of adhesive (at 23°C)													
In mixer nozzle	1.8 hr	10 min	8 min	1.3 hr	1 hr	40 min	3 min	10 min	5 min	40 min	15 min	15 min	45 min
100 g of mix	1.5 hr	6 min	5 min	60 min	1 hr	40 min	-	-	-	40 min	15 min	15 min	60 min
Time required to reach (at 23°C)													
Light handling strength (1 MPa)	7 hr	30 min	20 min	4 hr	3 hr	4 hr	8 min	18 min	5 min	4 hr	6 hr	3 hr	6 hr
50% of final shear strength	10 hr	3 hr	1 hr	10 hr	5 hr	6 hr	20 min	30 min	20 min	10 hr	20 hr	16 hr	20 hr
Time required to reach (at 60°C)													
50% of final shear strength	45 min	20 min	10 min	40 min	20 min	40 min	-	-	-	30 min	1.5 hr	60 min	60 min

## PERFORMANCE DATA

	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055
Lap shear strength on GRP substrate	11 MPa	5 MPa	9 MPa	8 MPa	9 MPa	9 MPa	8 MPa	8 MPa	6 MPa	8 MPa	7 MPa	8 MPa	9 MPa
Peel strength on Al substrate	5 N/mm	6 N/mm	5.5 N/mm	4 N/mm	3 N/mm	4 N/mm	11 N/mm	4 N/mm	3 N/mm	4 N/mm	4 N/mm	6 N/mm	1 N/mm
Typical Tg / Max temp giving LSS of 5 MPa	45°C / 90°C	40°C / 80°C	40°C / 80°C	45°C / 70°C	85°C / 140°C	65°C / 110°C	65°C / 110°C	45°C / 100°C	80°C / 90°C	Flex / 40°C	30°C / 50°C	30°C / 50°C	60°C / 90°C
Resistance properties													
Chemical	○	○	○	●	●	○	○	●	●	○	○	○	○
Heat	○	○	○	○	○	○	○	○	○	○	○	○	○
Water	○	○	○	○	○	○	○	○	○	○	○	○	○
Impact	●	●	○	○	○	○	○	○	○	○	○	○	○

## PACKAGING

	2011	2010-1	2012	2013	2014-1*	2015	2021	2022	2047**	2018	2040	2041-1	2055
Cartridges													
50 ml	■	■	■	■	■	■	■	■	■	■	■	■	■
200 ml	■	■	■	■	■	■	■	■	■	■	■	■	■
400 ml				■									
500 ml													
Working packs (2 kg kits)	■		■	■	■								

\* Araldite® 2014-1 is only registered for use in Europe. Araldite 2014® is directly equivalent in performance to 2014-1 and is available for regions outside of Europe.

\*\* Araldite® 2047 is currently only registered for use in Europe.