



Pipe Bonding

Adhesives for the composite pipe industry

HUNTSMAN

Adhesives for bonding composite pipes

A cost effective alternative

Composite pipes are used in a wide variety of industries from chemical plant and oil refineries to fire mains and drinking water supplies.

They offer many advantages over conventional metal pipes and usually provide a more cost effective alternative by offering lower installation costs, together with little or no maintenance.

The weight of a composite pipe is approximately 12% of that of a conventional steel pipe, thus giving ease of handling together with advantages where weight is critical, for example in off shore applications.



Major benefits

There are several benefits from bonding composite pipe joints.

- Lower manufacturing costs of both the pipes and fittings as less machining and working is required.
- High corrosion resistance which ensures long life.
- No threading or welding is required.
- Low thermal conduction and heat loss

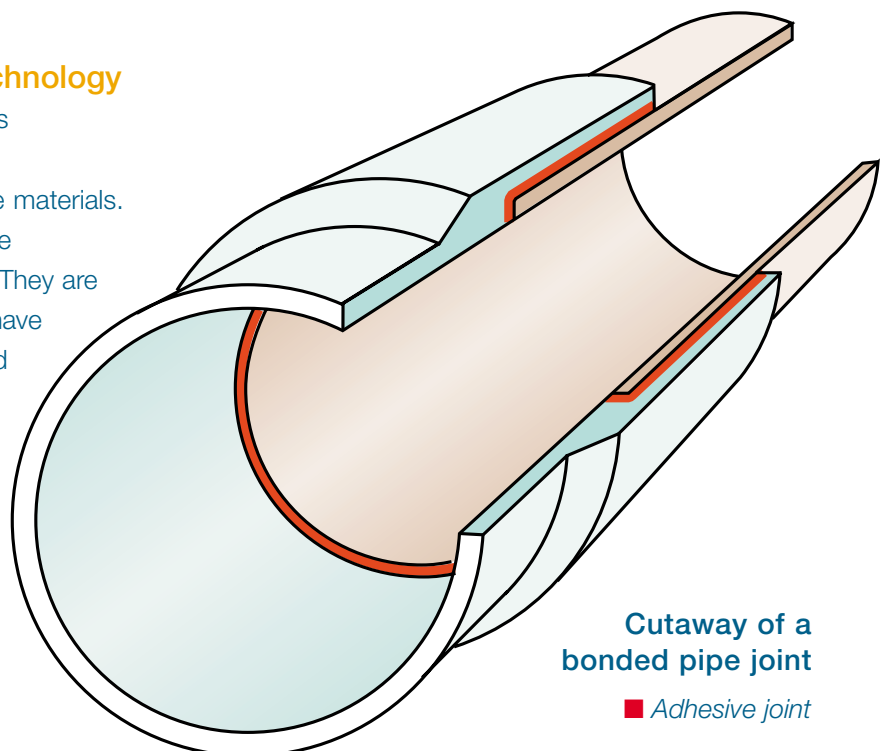
Easy bonding process

These two component epoxy adhesives offer a high quality easy to use product. The bonding process can easily be carried out on site as our adhesives are supplied in easy to use, pre measured kits or cartridges. Once the two pipes to be joined have been prepared, the resin and hardener components are mixed together and applied to the surfaces to be joined. The joint can be cured at room temperature or at elevated temperatures with a heating jacket.

Leading the industry in adhesive technology

Huntsman Advanced Materials has many years experience in producing adhesives which are specifically designed for use with composite materials. These adhesives meet a variety of performance characteristics and production design criteria. They are extremely durable over long time periods, and have excellent resistance to high temperatures, and chemical attack. They are capable of bonding a variety of substrate materials, creating a strong and reliable joint. The soft, non-slumping paste is easy to apply and has gap filling characteristics which also gives a reliable seal.

The adhesives have been given a number of approvals for the use in the supply of drinking water.



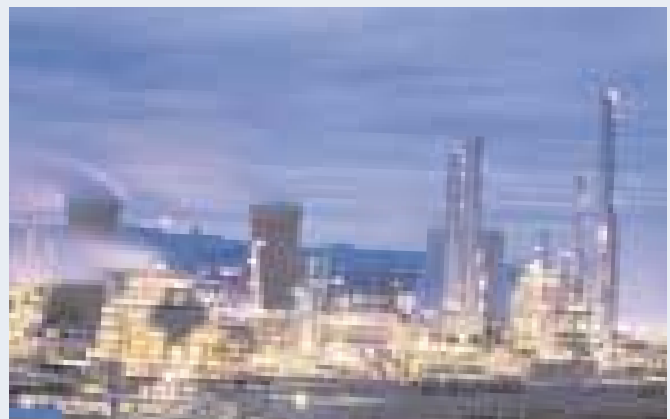
The pipe bonding product range

Core Products	Pipe substrate	Maximum operating temperatures	Chemical resistance	Cure	Usable life at 23°C	Pack types	Product approvals
AV 4415 / HV 4416	GRP/GRE	180°C	* * * * *	HOT	90 Minutes	30Kg / 272g	KIWA
AV 4415 / HV 4416 Conductive grade	GRP/GRE	180°C	* * * * *	HOT	90 Minutes	30Kg / 272g	KIWA
Araldite® 2014 (AW 139 / XB 5323)	GRP/GRE	140°C	* * * *	AMBIENT	40 Minutes	30Kg / 2Kg 200/50ml	KIWA
Araldite® 2015 (AV 5308 / HV 5309)	GRP/GRE	100°C	* *	AMBIENT	40 Minutes	30Kg / 2Kg 400/200/50ml	
AV 4738 / HV 4739	GRP/GRE	120°C	* * * *	AMBIENT	30 Minutes	30Kg / 230g	KIWA
Other Products							
XD 4525 / XD 4526	GRP/GRE	100°C	* * * *	AMBIENT	100 Minutes	30Kg	
XW 1038 / XW 1015	GRP/GRE	140°C	* * * *	AMBIENT	60 Minutes	30Kg / 830g	
AV 138 / XB 5323	GRP/GRE	130°C	* * * *	AMBIENT	120 Minutes	30Kg	KIWA

For further technical information on Huntsman Advanced Materials' Araldite pipe bonding adhesives please contact our specialist team.

Our customers include:

ABU DHABI PIPE FACTORY
 AMERON
 BONDSTRAND
 BREDERO SHAW
 COMPOSITE DEVELOPMENT AS
 COMPOSITES PIPE INDUSTRY
 FIBERCAST
 FUTURE PIPE INDUSTRIES B.V.
 GULF ETERNIT



Vantico GmbH
Breitenfurterstrasse 251
A-1231 Wien
Austria
Tel: +43 1 80 132
Fax: +43 1 80 132 421

Vantico Pty Ltd
235 Settlement Road
Thomastown
Victoria 3074
Australia
Tel: +613 9280 2300
Fax: +613 9280 2329

Vantico NV
Noordkustlaan 18
1702 Groot-Bijgaarden
Belgium
Tel: +32 2 467 08 68
Fax: +32 2 467 07 88

Vantico Ltda.
Av. Prof. Vicente Rao, 90
04706-900 São Paulo, SP.
Brazil
Tel: +55 11 5532 7359
Fax: +55 11 5240 8175

Denmark
Tel: +45 45 90 25 50
Fax: +45 45 90 25 50

Finland & Sweden
Tel: +46 31 89 23 00
Fax: +46 31 89 23 50

Vantico S.A.S.
107-111 avenue Georges
Clémenceau
F-92000
Nanterre
France
Tel: +33 1 55 51 88 50
Fax: +33 1 55 51 88 51

Vantico GmbH & Co KG
Trottäcker 24-26
D- 79713 Bad Säckingen
Germany
Tel: +49 77 61 56 96 600
Fax: +49 77 61 56 96 650

Greece
Stelios Mercouris & Co.
Tel: +30 19 42 09 28
Fax: +30 19 42 61 16

Vantico Limited
Suites 2303-2306, Tower 1
The Gateway
No. 25, Canton Road
Tsimshatsui, Kowloon
Hong Kong
Tel: +852 2148 8800
Fax: +852 2487 1428

Vantico Performance
Polymers Pvt. Ltd
782-882
Solitaire Corporate Park
167, Guru Hargovindji Marg
Chakala
Andheri (East)
Mumbai 400 093
India
Tel: +91 22 827 0162
Fax: +91 22 827 0160

Vantico Srl
Largo Umberto Boccioni 1
Km 20.5
21040 Origgio (VA)
Italy
Tel: +39 02 964 2611
Fax: +39 02 9670 1157

Vantico K.K.
Kobe Head Office,
KIBC
5-5-2 Minatojima Minamimachi
Chuo-ku
Kobe 650-0047
Japan
Tel: +81 78 304 3920
Fax: +81 78 304 3970

Norway
Lindberg & Lund A.S
Tel: +47 64 95 63 63
Fax: +47 64 95 63 77

Portugal
Tel: +34 93 404 04 07
Fax: +34 93 404 03 76

Vantico Pte Ltd.
29 International Business Park
#05-02 Acer Building Tower A
Singapore 609923
Tel: +65 6 416 9200
Fax: +65 6 416 9214

South Africa
Tel: +27 11 92 94 300
Fax: +27 11 92 94 399

Vantico España S.L.
Balmes 117 (Apartado 744)
E-08008 Barcelona
Spain
Tel: +34 93 404 04 07
Fax: +34 93 404 03 76

Vantico AG
Klybeckstrasse 200
4002 Basel
Switzerland
Tel: +41 61 966 33 33
Fax: +41 61 966 33 34

Turkey
Tel: +90 216 313 2628
Fax: +90 216 314 7913

Vantico F.Z.E.
PO Box 16942
Jebel Ali Free Zone
UAE - Dubai
Tel: +971 4 88138 00
Fax: +971 4 88130 60

Vantico Inc.
5121 San Fernando Road West
Los Angeles, CA 90039-1071
USA
Tel: +1 818 247 6210
Fax: +1 818 507 0167

Vantico Inc.
4917 Dawn Avenue
East Lansing, MI 48823-5691
USA
Tel: +1 517 351 5900
Fax: +1 517 351 9003

Handling Precautions

Caution

Huntsman Advanced Materials products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils, and measures should also be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper towels – not cloth towels – should be used to dry the skin. The work area should be well ventilated. These precautions are described in greater detail in Manual No. 24264/e *Hygienic Precautions for Handling Plastic Products of Huntsman Advanced Materials* and in the Material Safety Data Sheets for the individual products. These publications are available on request and should be referred to for fuller information.

All recommendations for use of our products, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefore. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

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.

Vantico Ltd

Duxford
Cambridge CB2 4QA
U.K.
Tel: +44 1223 493 000
Fax: +44 1223 493 002

www.araldite.com

Distributed by:

HUNTSMAN