dodavatel: Dawex Chemical s.r.o., e-shop: www.levnetmely.cz
technický servis, poradenství: 777 644 770, 226 259 448
(nakupujte vše na e-shopu se slevou 5% po zadání slevového kódu v košíku 1122)

Araldite® 2020 (XW 396 / XW 397)

Structural Adhesives

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Araldite® 2020 (XW 396/XW 397)

Two component clear epoxy adhesive system

Key properties

- **Low viscosity, water white adhesive**
- **Especially suitable for glass and ceramic bonding**
- **Suitable for clear castings and laminates**
- **Refractive index similar to that of glass**

Description

Araldite XW396 / XW397 is a two component, room temperature curing, low viscosity adhesive specifically designed for glass bonding.

It is also suitable for bonding a wide variety of metals, ceramics, rubbers, rigid plastics and most other materials in common use.

Product data

	2020 A	2020 B	Mixed
Colour (visual)	Water white	Water white	Water white
Specific gravity	ca 1.12	ca 0.95	ca 1.1
Viscosity (mPas)	ca 150	ca 150	ca 150
Pot life (100 gm at 25°C)	-	-	40 - 50 minutes
Shelf life (2 - 40°C)	3 years	3 years	-
Refractive index	-	-	1.553
Flash point (°C)	140	>120	-

Processing

Pretreatment

The strength and durability of a bonded joint are dependant on proper treatment of the surfaces to be bonded.

At the very least, joint surfaces should be cleaned with a good degreasing agent such as acetone, iso-propanol (for plastics) or other proprietary degreasing agents in order to remove all traces of oil, grease and dirt.

Low grade alcohol, gasoline (petrol) or paint thinners should never be used.

The strongest and most durable joints are obtained by either mechanically abrading or chemically etching (“pickling”) the degreased surfaces. Abrading should be followed by a second degreasing treatment.

Mix ratio	Parts by weight	Parts by volume
2020 A	100	100
2020 B	30	35

Resin and hardener should be blended until they form a homogeneous mix.

Application of adhesive

The resin/hardener mix may be applied manually or robotically to the pretreated and dry joint surfaces. Huntsman's technical support group can assist the user in the selection of an suitable application method as well as suggest a variety of reputable companies that manufacture and service adhesive dispensing equipment.
A layer of adhesive 0.05 to 0.10 mm thick will normally impart the greatest lap shear strength to the joint. Huntsman stresses that proper adhesive joint design is also critical for a durable bond. The joint components should be assembled and secured in a fixed position as soon as the adhesive has been applied.
For more detailed explanations regarding surface preparation and pretreatment, adhesive joint design, and the dual syringe dispensing system, visit www.araldite2000plus.com.

Equipment maintenance

All tools should be cleaned with hot water and soap before adhesives residues have had time to cure. The removal of cured residues is a difficult and time-consuming operation.
If solvents such as acetone are used for cleaning, operatives should take the appropriate precautions and, in addition, avoid skin and eye contact.

Times to minimum shear strength

Temperature	°C	10	15	23	40	60	100
Cure time to reach	hours	24	20	16	3	-	-
LSS > 1N/mm^2	minutes	-	-	-	-	90	15
Cure time to reach	hours	60	48	25	7	2.5	-
LSS > 10N/mm^2	minutes	-	-	-	-	-	20

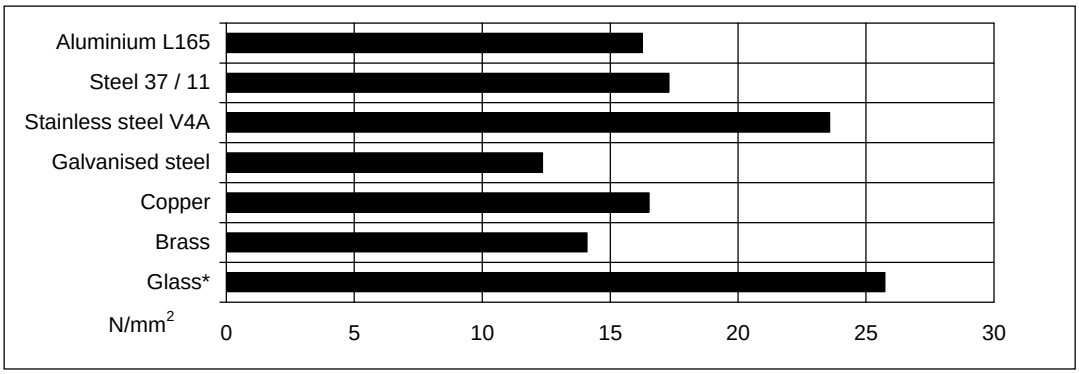
LSS = Lap shear strength.

Typical cured properties

Unless otherwise stated, the figures given below were all determined by testing standard specimens made by lap-jointing 114 x 25 x 1.6 mm strips of aluminium alloy. The joint area was 12.5 x 25 mm in each case.
The figures were determined with typical production batches using standard testing methods. They are provided solely as technical information and do not constitute a product specification.

Average lap shear strengths of typical metal-to-metal joints (ISO 4587)

Cured for 16 hours at 40°C and tested at 23°C
Pretreatment - Sand blasting

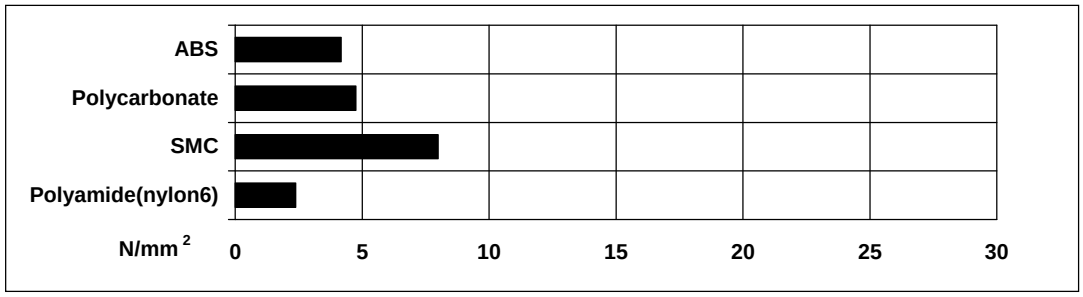


*: compression shear strength

Average lap shear strengths of typical plastic-to-plastic joints (ISO 4587)

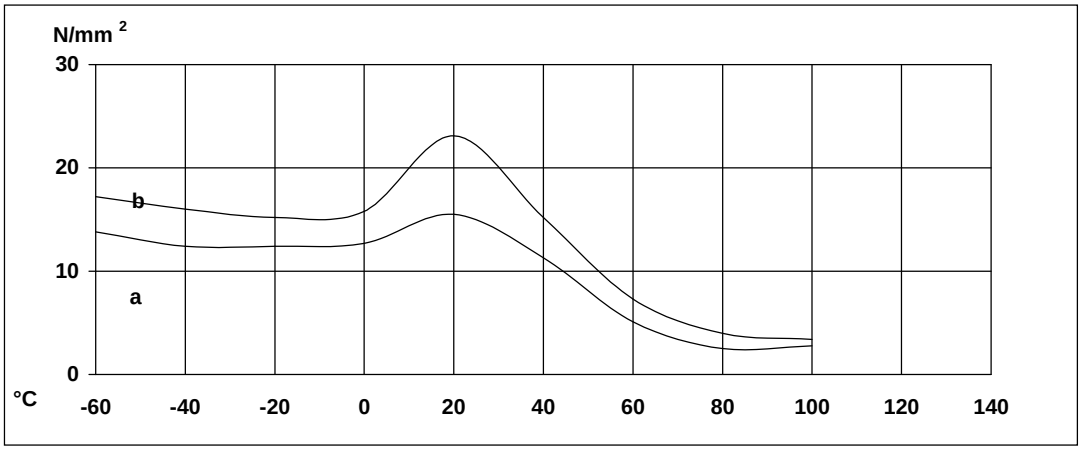
Cured for 16 hours at 40°C and tested at 23°C

Pretreatment - Lightly abrade and iso-propanol degrease.



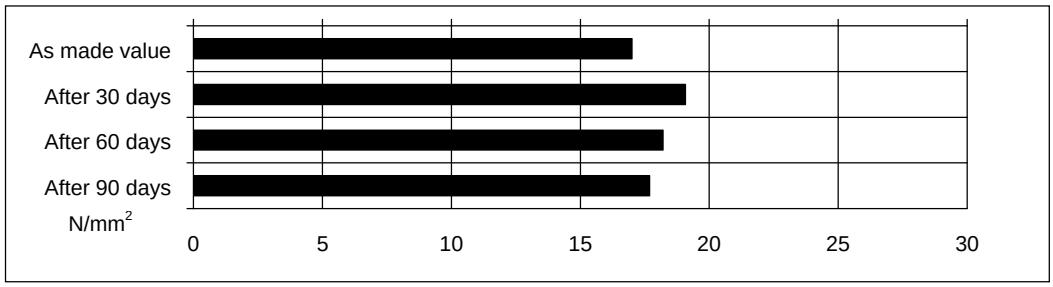
Lap shear strength versus temperature (ISO 4587) (typical average values)

Cure: (a) = 7 days /23°C; (b) = 24 hours/23°C + 30 minutes/80°C



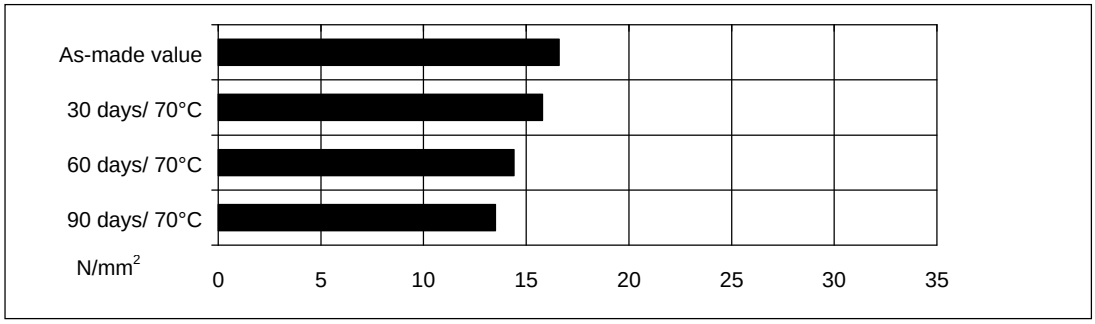
Lap shear strength versus tropical weathering

(40/92, DIN 50015; typical average values)
Cure: 16 hours/40°C; Test: at 23°C



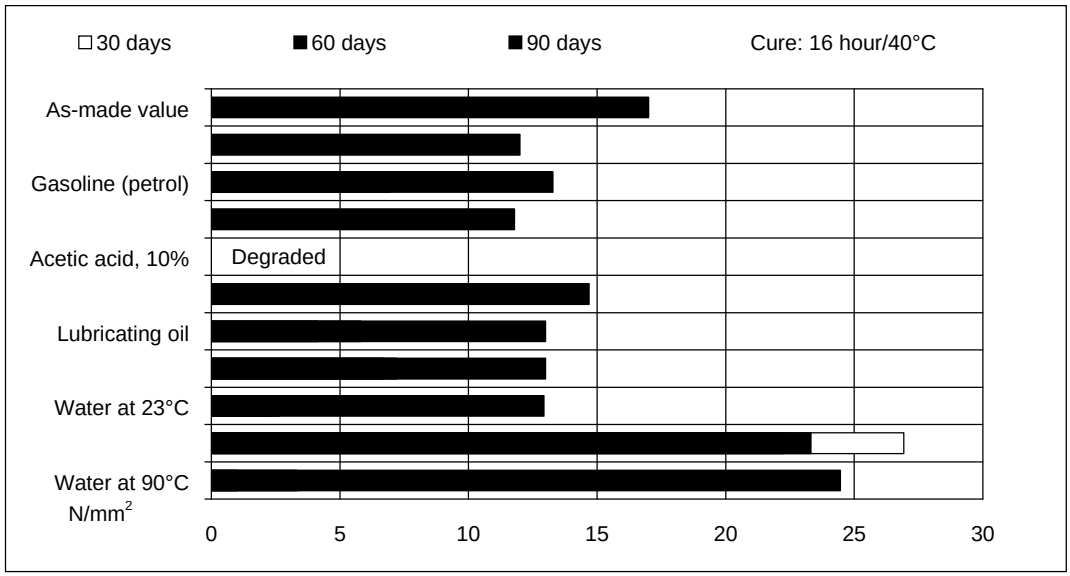
Lap shear strength versus heat ageing

Cure:16 hours/40°C



Lap shear strength versus immersion in various media (typical average values)

Unless otherwise stated, L.S.S. was determined after immersion for 90 days at 23°C



Roller peel test (ISO 4578)	0.21 N/mm
Cured 16 hours/40°C	
Glass transition temperature (°C)	approx. 39.5°C
Thermal cycling	
100 cycles of 6 hour duration from -30°C to 70°C	4.5 N/mm^2

Flexural Properties (ISO 178) Cure 16 hours/ 40ºC tested at 23ºC

Flexural Strength	74.9 MPa
Flexural Modulus	2467.9 MPa

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Storage

Araldite 2020/A and Araldite 2020/B may be stored for up to 3 years at room temperature provided the components are stored in sealed containers. The expiry date is indicated on the label.

Handling precautions

Caution

Our 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 into contact with foodstuffs or food utensils, and measures should 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 - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

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