IX 28215
Two component epoxy paste adhesive

Key properties

- **Toughened paste**
- **Ideal for bonding GRP, SMC and dissimilar substrate**
- **Low shrinkage**
- **Gap filling, non sagging up to 10mm thickness**
- **High shear and peel strength**

Description

IX 28215 is a two component, room temperature curing paste adhesive giving a resilient bond. It is thixotropic and non sagging up to 10mm thickness. It is particularly suitable for SMC and GRP bonding.

Product data

	28215A	28215B	28215(Mixed)
Colour (visual)	Smooth beige paste	Smooth cream paste	beige paste
Specific gravity	1.4	1.4	ca.1.4
Viscosity at 25°C (Pas)	thixotropic	thixotropic	thixotropic
Pot Life (100 gm at 25°C)	-	-	**60 minutes**

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 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
28215A	100	100
28215B	100	100

IX 28215 is available in cartridges incorporating mixers and can be applied as ready to use adhesive with the aid of the tool recommended by IXChemistry.

Application of adhesive

The resin/hardener mix may be applied manually or robotically to the pretreated and dry joint surfaces.A layer of adhesive 0.05 to 0.10 mm thick will normally impart the greatest lap shear strength to the joint. The joint components should be assembled and secured in a fixed position as soon as the adhesive has been applied.Too thick rubber can not bring greater bonding strength.

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.Used the packing box can't be used again.

Time to minimum shear strength

Temperature	°C	10	15	23	40	60	100
Cure time to reach LSS >1 MPa	hours	12	7.5	4	-	-	-
	minutes	-	-	-	60	17	6
Cure time to reach LSS >10 MPa	hours	21	13	6	2	-	-
	minutes	-	-	-	-	35	7

LSS =Lap shear strength

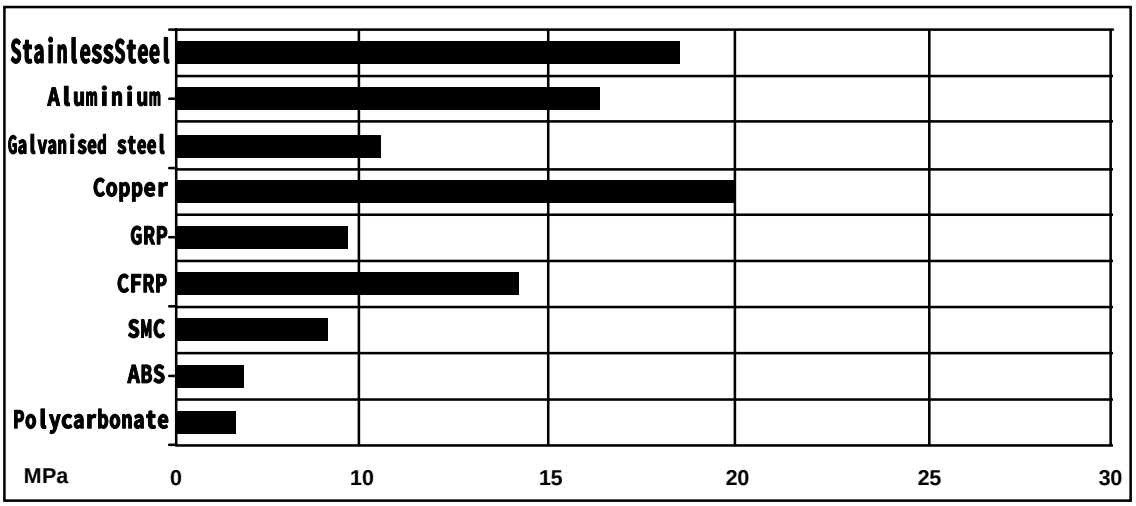
Typical cured properties

Sample standard

Unless otherwise stated, the figures given below were all determined by testing standard specimens made by lap-jointing 114 x 25 x 1.6mm 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.

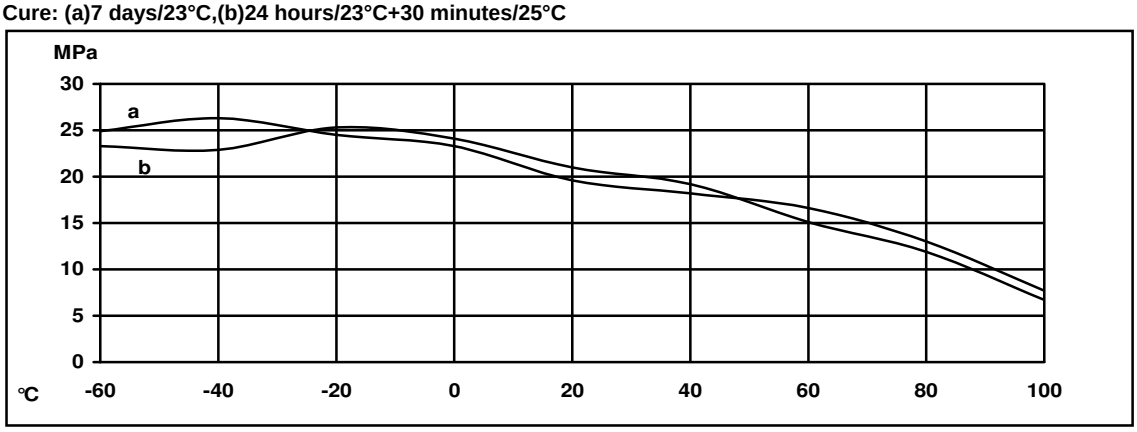
Average lap shear strengths of typical(ISO 4587)

Cure: 16 hour/40°C,tested at 23°C.Metals:Sand blasting,Non-metallic:Lightly abrade and alcohol degrease.



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

Cure: (a)7 days/23°C,(b)24 hours/23°C+30 minutes/25°C



Tensile properties (ISO 527). Cure 16hrs at 40°C (typical average values)- tested at 23°C

Tensile strength	30 MPa
Tensile modulus	2 GPa
Elongation at break	4.4 %

Roller peel test (ISO 4578) (typical average values)

On aluminium sandblasted, cured: 16 hours at 40°C	4 N/mm

Glass transition temperature (typical average values) (ISO 11357-2)

Cure: 16 hours at 40°C	67°C by DSC
Cure: 1 hour at 80°C	87°C/DMA (ISO6721)
Dielectric constant (500v at 25°C) DIN 53445	5.6 at 1 kHz

Flexural Properties (ISO 178) (typical average values). Cure 16 hours at 40ºC , tested at 23ºC

Flexural Strength	42 MPa
Flexural Modulus	1800 MPa

Resistance to fatigue (ISO9664) (typical average values). (40 Hz at 23°C) (quoted as cycles to failure)

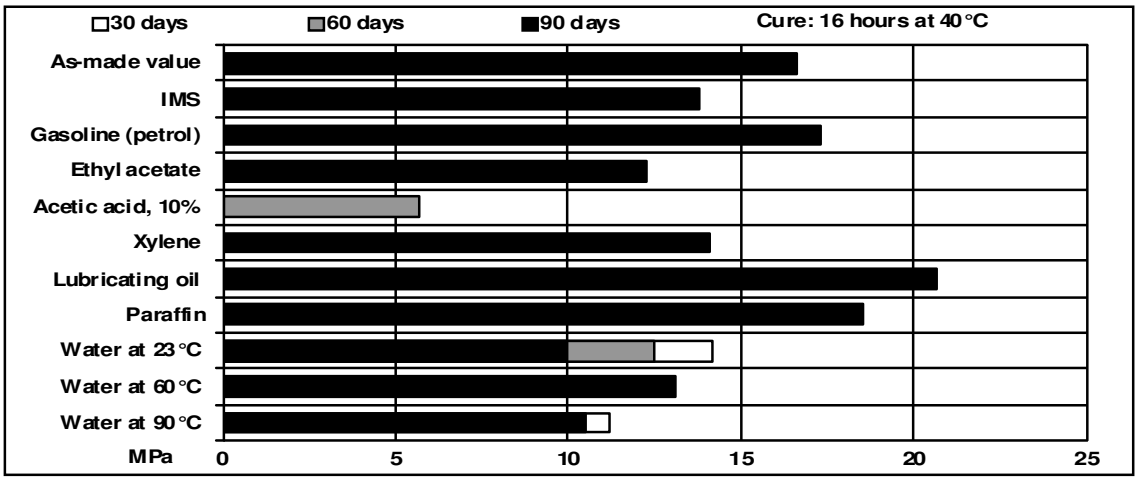
On aluminium, cured for 16 hours at 40°C and tested at 23°C. Pretreatment - Sand blasting

Maximum applied load	Sandblasted aluminium	Chromate pickled aluminium
20% of static failing load	$>10^7$	$>10^7$
25% of static failing load	$>10^7$	10^7
30% of static failing load	3×10^6	8×10^5

(Static failing load 16 MPa)

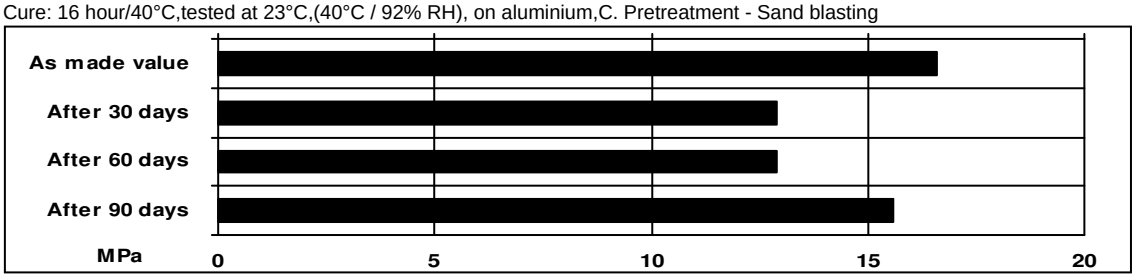
Lap shear strength versus immersion in various media at 23 ° C ISO4857(typical average values)

Unless otherwise stated, L.S.S. was determined after immersion for 30, 60 and 90 days at 23°C



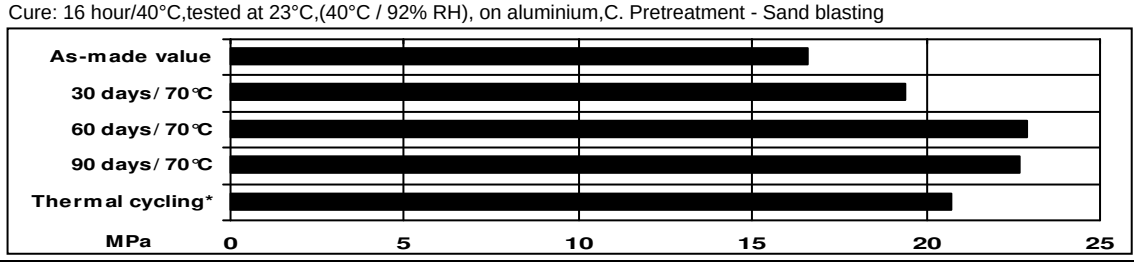
Lap shear strength versus tropical weathering(40/92,DN 50015)

Cure: 16 hour/40°C,tested at 23°C,(40°C / 92% RH), on aluminium,C. Pretreatment - Sand blasting



Lap shear strength versus heat ageing (ISO 4587)

Cure: 16 hour/40°C,tested at 23°C,(40°C / 92% RH), on aluminium,C. Pretreatment - Sand blasting



Storage

IX 28215 may be stored for up to 36 months 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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