

DATA SHEET

Twin Tube Epoxy Adhesive- Fast cure
LIONBOND™ TTC-905NA/B

LIONBOND™ TTC-905NA/B is a fast curing, multipurpose, two component epoxy based structural adhesive. Widely use in industry assembly works and normally repair bonding..

- Key Properties**
- Fast cure under room temperature
 - 1:1 easy mix ratio
 - Good resistance to dynamic loading

Product Data	TTC-905NA	TTC-905NB
Appearance	Black	Clear
Specific gravity	Ca 1.18	Ca 1.05
Viscosity at 25°C (Pas)	20-25	8-16
Parts By Weight	100	100
Potlife (100g, 25°C)	5 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, trichloroethylene or proprietary degreasing agent in order to remove all traces of oil, grease and dirt. 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

Application of adhesive

The resin/hardener mix is applied with a spatula to the pretreated and dry joint surfaces. A layer of adhesive 0.05 to 0.10mm thick will normally impart the greatest lap shear strength to the joint. The joint components should be assembled and clamped as soon as the adhesive has been applied. An even contact pressure throughout the joint area will ensure optimum cure.

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.

Time to minimum shear strength

Temperature	°C	10	15	23	40	60	100
Cure time to reach	Hours	-	-	-	-	-	-
LSS > 1 N/mm ²	Minutes	30	20	20	4	2	1
Cure time to reach	Hours	2	-	-	-	-	-
LSS > 10 N/mm ²	Minutes	-	70	60	25	10	2

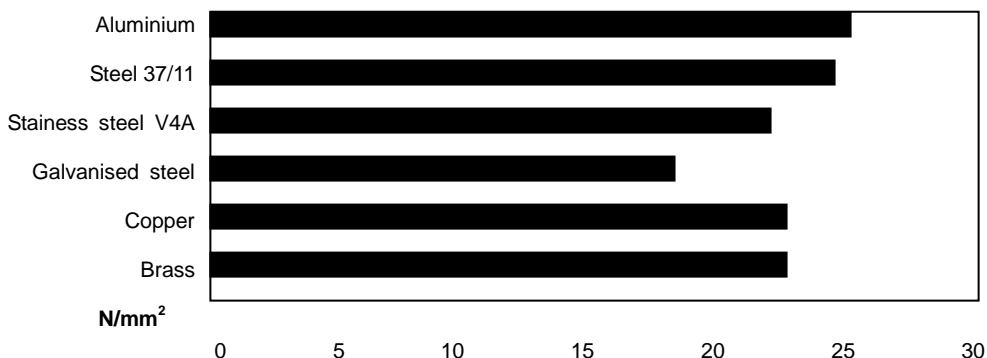
LSS= Lap shear strength

Typical cured properties

Note that in order to achieve good chemical resistance a curing temperature of at least 25°C is necessary. Higher curing temperature can give further improvements. Unless otherwise stated, the figures given below were all determined by testing standard specimens made by lapjointing 170 x 25 x 1.5 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.

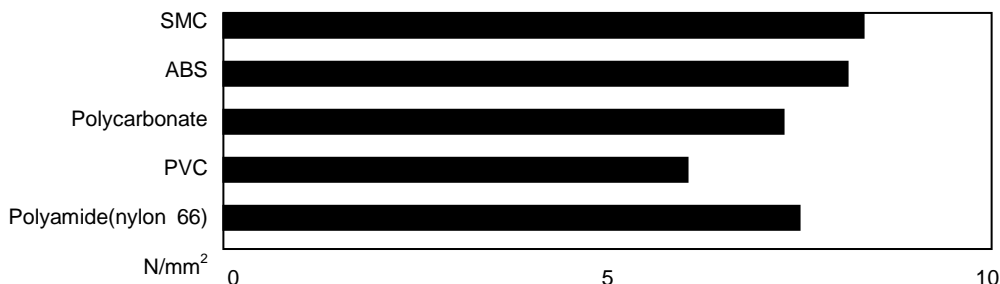
Average lap shear strengths of typical metal-to-metal joints (ISO 4587)
Cured for 16 hours at 40°C and tested at 23°C

Pretreatment – Sand blasting



Average lap shear strengths of typical plastic-to-plastic joints (ISO 4587)
Cured for 16 hours at 23°C and tested at 23°C

Pretreatment – Light abrade and alcohol



Storage

The resin and hardener should be stored in a dry place at 5-25°C.. Reseal container After use.

Precautions

Lion's 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.