

Technical Data

Sheet

LOCKFAST 121

LOCKFAST 121 is a high strength, toughened acrylic adhesive, which will bond metals, plastics, wood, glass and composites to themselves or in any combination.

LOCKFAST 121 is a unique two part adhesive. It is applied direct from the cartridge as '2' overlapping beads, eliminating the need for mixing or via a minimixer nozzle or minitip. It produces clean, no waste applications and allows stop start production without blockage.

TYPICAL PROPERTIES

Colour (mixed) Grey
opaque Viscosity 3,000
Specific gravity 1.01
Temperature Range -55°C to 125°C

Handling strength 3-5 minutes
Working strength 30-60
minutes Full strength 24 hours

TEST RESULTS

The test results, shown on table 1 on page 2, were achieved after the following surface preparation:

STEEL: Polished with emery paper, washed with acetone and dried in desiccator for 24 hours.

OTHER METALS: Washed with Trichloroethylene, washed with acetone, then dried in desiccator for 24 hours.

PLASTICS: Washed with methanol, dried in desiccator for 24 hours.

TABLE ONE

MATERIAL	TENSILE SHEAR	kg/cm²
Steel/Steel		276
Zinc Chromate/Zinc Chromate		180
Nickel/Nickel		193
Chrome/Chrome		162
Brass/Brass	228	
Stainless Steel/Stainless Steel		204
Copper/Copper		244
Aluminium/Aluminium		224
Zinc/Zinc		214
Epoxy FRP/Epoxy FRP		84*
Phenol FRP/Phenol FRP		65*
PVC/PVC		35*
Polyester/Polyester		31
Styrol/Styrol		24
ABS/ABS		47
PA-6 (Nylon 6)		20
Glass		50

TABLE TWO

MATERIAL	KN	KG/IN²
Aluminium / Aluminium >500 (Mill finish)	>5.00	
Aluminium / Aluminium >500 (Chromated finish)	>5.00	
Stainless Steel / Aluminium >500 (Mill finish)	>5.00	
Stainless Steel / Stainless Steel	>5.00	>500
Aluminium / Acrylic* (Chromated)	3.18	318
Aluminium / Polycarbonate* (Chromated)	3.00	300
Acrylic / Acrylic*	2.12	212
Acrylic* / Polycarbonate	2.27	227
Polycarbonate / Polycarbonate*	3.07	302/3

TABLE TWO Continued

Komacel / Komacel* 0.65 65.6

Zintec / Zintec 5.00 >500

N.B. Tensometer had testing facility up to 5.00KN

*Denotes substrate failure of particular material.

ADDITIONAL DATA

In addition to the manufacturer's published data on the tensile shear strengths achievable on similar materials under ideal conditions, Eurobond have commissioned further tests on material combinations found within the Sign Industry, prepared and bonded under typical workshop conditions (see under 'Surface Preparation' following). Results are given in Table 2.

Surface Preparation

All surfaces should be abraded with medium grit emery paper, cleaned with Isopropyl alcohol and wiped dry with a clean cloth. **DO NOT** use petroleum based products such as Methylated Spirits or White Spirits to clean surfaces as these will degrade the adhesive over time and lead to bond failure. This degree of preparation is designed to represent typical working practices as opposed to 'laboratory conditions' where solvent cleaning and chemical etching of surfaces might be employed.

All metal to metal samples produced tensile shear strengths of $>500 \text{ kg/inch}^2$, the limit of the tensometer used being 5Kn, and the samples remaining intact.

N.B.

Bonded area was one square inch in each case.

Chemical Resistance

Steel to steel dipped for 7 days.

Blank not dipped 283kg/cm² 0% loss.

Petrol 246kg/cm² 13

Water 225kg/cm² 20

Caustic Soda 10% 223kg/cm² 21

Xylene 195kg/cm² 31

Ethyl Acetate 91kg/cm² 68



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