

PRODUCT DATA

Nippon Steel

TECHNICAL BULLETIN

Nippon Steel L3

General Purpose : Instant Bond

DESCRIPTION

Nippon Steel L3 is a Ethyl based Cyanoacrylate which bonds almost immediately on contact. Nippon Steel L3 is an industrial grade, very low viscosity super glue designed to bond most metals, plastics, elastomer, wood, textiles etc. Bonding times and strength vary according to the substrate but are generally faster and stronger than normal super glues.

APPLICATIONS

Typical applications include wood trim, rubber, EPDM, ABS and fabric. Other features include versatile bonding of most elastomers, metals and plastics, where penetration of adhesive is required.

TYPICAL CURING PERFORMANCE

Under normal conditions, the surface moisture initiates the hardening process. Although full functional strength is developed in a relatively short time, curing continues for at least 24 hours before full chemical / solvent resistance is developed.

Cure Speed vs. Substrate

The rate of cure will depend on substrate used. The table below shows the fixture time achieved on different materials at 22°C, 50% relative humidity. This is defined as the time to develop a shear strength of 0.1N/mm² (14.5 psi) tested on specimens according to ASTM D 1002.

Substrate	Fixture Time, seconds
Mild Steel (degreased)	5 to 10
Aluminum (degreased)	5 to 10
Neoprene	2-4
Nitrile rubber	2-4
Phenolic materials	4 to 10
Wood (Balsa)	2
Fabric	3 to 5
Leather	2 to 5

CHEMICAL / SOLVENT RESISTANCE

Aged under conditions indicated and tested at 22°C.

Solvent	Temp	% Initial strength retained		
		100hr	500hr	1000hr
Motor Oil	40°C	100	95	95
Leaded Petrol	22°C	100	100	100
Motor Oil	22°C	100	100	100

USEFUL HINTS / NOTES

On elastomer bonding and some plastics, residues or release agents on surfaces should be removed by solvent wipe with Nippon Steel 729 Cleaner.

INSTRUCTIONS FOR USE

Ensure parts are clean, dry and free from oil and grease.

TECHNICAL FEATURES

Resin:	Modified Ethyl
Colour:	Clear
Cure Speed with Activator:	1-2 seconds
Cure Speed without Activator:	2-5 seconds
Viscosity:	3 cps
Flash Point:	> 85°C
Shelf Life:	12mths@20°C
Specific Gravity:	1.05
Max. Operating Temperature:	+ 83°C

CURED PERFORMANCE

Fixture Time:	< 10 seconds
Typical Strength:	12N/mm ²

STORAGE

Store in a cool, out of direct sunlight. Refrigeration to 5°C gives optimum storage stability

PERFORMANCE OF CURED MATERIAL

(After 24 hours at 22°C)

	Typical Value
Shear Strength, ASTM D 1002, DIN 53283	
Grit Blasted Steel, N/mm ²	18
Zinc Dichromate, N/mm ²	7
PVC, N/mm ²	15
Polycarbonate, N/mm ²	10
Neoprene Rubber, N/mm ²	12

PRESENTATION

Bottles: 20g

HEALTH & SAFETY IN USE

DANGER - Superglue bonds skin and eyes in seconds.

If accidental skin bonding happens, wash with warm soapy water and peeled skin apart using a blunt instrument (such as a teaspoon handle).

In case of eye contact, bath immediately with water and seek immediate medical attention.

NOTE

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof.