

S5001

HIGH PERFORMANCE BONDING SYSTEM



PRODUCT INFORMATION

Alpha S 5001 is a two part polychloroprene adhesive. Alpha S5001 A & B have been formulated to meet all the requirements of BASE 5001.

Alpha S 5001 is a two part system developed to guarantee a superior adhesion to a variety of natural and synthetic rubber surfaces. The cured adhesive has good resistance to attack from atmospheric oxidation, salt water, oil mild acids and alkalis etc., can be used in service over a wider temperature and humidity range.
It is formulated to be easily removed from skin.

KEY INFORMATION

- Formulated to meet BASE 5001 adhesive standards
- High performance adhesive system
- Excellent adhesion to natural and synthetic rubbers
- Salt water resistant
- Wide in-service temperature range
- Good resistance to atmospheric oxidation, oil, some chemicals, aviation fuels, mild acids and alkalis

TYPICAL APPLICATIONS

Alpha S5001 is suitable for the following applications:

- Inflatable liferafts and boats
- General rubber products
- Numerous industrial applications

PRODUCT CHARACTERISTICS

The following technical information and data should be considered representative or typical only. Therefore, the information should not be used for specification purposes.

Property	Data
Colour	A: Off White B: Brown
Base	A: Polychloroprene rubber / B: Isocyanate
Consistency	Both: Liquid
Specific Gravity (20°C)	A: 0.85 / B: 1.30
Total Solids Content	A: 21.0-25.0 % / B: 18.0-22.0 %
Viscosity (20°C)	A: 2700-3300 cP / B: N/A
Mix Ratio	100 parts A : 6 parts B (by weight) 100 parts A : 4 parts B (by volume)
Coverage	3 – 4 m ² of bonded material / litre*
Open Joint Time (mixed adhesive)	5 – 30 minutes*
Pot Life (mixed adhesive)	up to 4 hours at 20°C
Cure Time (mixed adhesive)	48 Hours under normal ambient temperature conditions but the strength of the adhesive reach its maximum within 7 days
Heat Resistance (cured material)	-40°C to 120°C
Application Conditions	Highest temperature recommended is 35°C Maximum Relative Humidity recommended is 65%

* dependent upon ambient temperature, relative humidity and the materials used.

PRODUCT PERFORMANCE

The performance data presented here has been determined by Alpha Adhesives & Sealants Limited standard test methods and are average values that should not be used for specification purposes. Our recommendations on the use of this product are based on tests believed to be reliable. It is advised that users conduct their own tests to determine the suitability of the product for their specific application.

Test	Substrates	Results/Observations
T-Peel Test (20°C, 65% RH)	Polychloroprene	>100 N / 50mm
T-Peel Test (20°C, 65% RH)	Butyl	>80 N / 50mm
T-Peel Test after Salt Water Exposure	Polychloroprene	>80 N / 50mm
T-Peel Test after Salt Water Exposure	Butyl	>60 N / 50mm
T-Peel Test after Heat Exposure	Polychloroprene	>70 N / 50mm (up to 120°C)
T-Peel Test after Heat Exposure	Butyl	>80 N / 50mm (up to 120°C)
T-Peel Test after Cold Exposure	Polychloroprene	>80 N / 50mm (down to -40°C)
T-Peel Test after Cold Exposure	Butyl	>80 N / 50mm (down to -40°C)
T-Peel Test after Humidity Exposure	Polychloroprene	>100 N / 50mm (30-98 % RH)
T-Peel Test after Humidity Exposure	Butyl	>80 N / 50mm (30-98 % RH)

HANDLING & APPLICATIONS

The general application information presented here is based upon typical conditions determined by Alpha Adhesives & Sealants Limited testing. Our recommendations on the use of this product are based on methods believed to be reliable. It is advised that users conduct their own tests to determine the suitability of the product for their specific application.

Process Step	Guidelines
Surface Preparation	All substrates must be clean of any dust, grit, loose material, wax, grease and oil using Alpha T559 or a suitable cleaner. The materials to be bonded should be dry.
Adhesive Application	TWO-WAY STICK 1. Alpha S5001 is supplied as a pre-weighed kit that has the correct mix ratio. Ensure that the S5001 Part A has been stirred. If the user wants to use a smaller amount, mix 100 parts of Alpha S5001 Part A with 6 parts of Alpha S5001 Part B (by weight). 2. Stir thoroughly until a creamy consistency is achieved. It is important that both parts of the Alpha S5001 bonding system are thoroughly mixed prior to application on to surfaces. 3. Using a brush or roller coater, apply an even coating of adhesive to both of the surfaces. Allow the first coat to become touch dry (approximately 10-20 minutes). 4. Apply a second coat to both surfaces and allow to dry until tacky (approximately 10-20 minutes). 5. Apply a final coat to both surfaces and allow to dry until tacky (approximately 10-20 minutes). 6. Position carefully and consolidate bond by firm even pressure over the whole area. A hand roller is recommended wherever possible.
Curing	The immediate high contact bond strength increases appreciably within the next 48 hours. For the best performance and heat resistance, leave at room temperature for 7 days, before subjecting to high in-service temperatures up to 120°C.
Cleaning	Alpha Cleaner T559 or TN1239 should be used to remove residues from surfaces.

HEALTH & SAFETY INFORMATION

Alpha S5001 Part A and Alpha S5001 Part B are classified as hazardous according to Directive EC 1272/2008. Please refer to the Alpha S5001 Part A and Alpha S5001 Part B Safety Data Sheets for further health & safety information.

STORAGE

Both components of the Alpha S5001 bonding system should be stored in their original containers, with the lids tightly secured, in dry conditions and at temperatures between 5°C and 25°C. Alpha S5001 will keep satisfactorily for up to 12 months from date of manufacture if stored according to the recommended conditions.

PRODUCT AVAILABILITY

Product Reference	Pack Size	Container	Box Quantity
S5001 Part A / Part B	240 ml / 10 ml	Tin / Bottle	12
S5001 Part A / Part B	0.935 L / 37 ml	Tin / Bottle	12
S5001 Part A / Part B	4.275 L / 170 ml	Tin / Bottle	N/A
S5001 Part A / Part B	21.45 L / 5 x 170 ml	Drum / Bottles	N/A

ISSUE : 11

February 2023

Alpha Adhesives & Sealants Ltd
Llewellyn Close, Sandy Lane Industrial Estate, Stourport-on-Severn, Worcestershire DY13 9RH
Tel: 01299 828626 Fax: 01299 828666 Email: sales@alpha-adhesives.co.uk Web: www.alpha-adhesives.co.uk

