

Product name: Aron Alpha 900H Series

Features:

Soft and flexible type.
Excellent resistance to heat and humidity after bonding various rubbers.
Low shrinkage property.

Physical Properties of Aron Alpha 900H Series

		901H2F	922H2	903TX
Liquid State (before curing)	Appearance	Colorless and Transparent		
	Main Ingredient	Ethyl 2-cyanoacrylate		
	Viscosity (cps, 77°F)		150	850
	Specific Gravity (d20)	1.067	1.067	N/A
	Solubility Parameter	10-11	N/A	N/A
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Solid State (after curing)	Appearance	Colorless and Transparent		
	Specific Gravity (d20)	1.214	N/A	N/A
	Hardness (Shore D, 77°F)	80	80	80
	Glass Transition Point (°C/°F)	123/253	123/253	118/245
	Young Modulus* (x 109 dynes/cm ²)	N/A	11.4	N/A
	Shrinkage (%)	N/A	12	N/A

*Young Modulus: the polymers are prepared by placing monomers under the atmosphere of AA Setter for 3 days and under 104°F for one day.

Setting Times (in seconds for various materials)

Material	Setting Times (sec)		
	901H2	922H2	903TX
Rigid PVC	3	3	5
ABS	10	10	10
Natural Rubber	15	30	30
Neoprene Rubber	5	10	5
Copper	10	N/A	10

Bonding Strengths (Tensile measured in psi for various materials)

Material	Tensile Strengths (psi)		
	901H2	922H2	903TX
Rigid PVC	3600	3800	2400
Aluminum	2700	2800	1800

*Material Failure

Bonding Strengths (Shear measured in psi for various materials)

Material	Shear Strengths (psi)		
	901H2	922H2	903TX
Natural Rubber	110*	110*	110*
Neoprene Rubber	110*	120*	110*
EPDM Rubber	N/A	190*	N/A

* Material Failure

Testing Details and Conditions for Testing

Test Pieces' measurements

Tensile strength: 0.5 x 0.5 x 1.5 inch; bonded area 0.25 sq. inch
Tensile shear strength:
for plastic and rubber 0.1 x 1.0 x 4.0 inch; bonded area 0.5 sq. inch
for metal 0.064 x 1.0 x 4.0 inch; bonded area 0.5 sq. inch

Bonding atmosphere: 72-75°F (22-24°C), 58-62% relative humidity

Testing Methods: ASTM D2095, D3164, and D1002

PERFORMANCE

Test conditions—Test specimen

Tensile strength: 0.5 x 0.5 x 1.5 inch; bonded area 0.25 sq. inch

Tensile shear strength: for plastic/rubber 0.1 x 1.0 x 4.0 inch; bonded area 0.5 sq. inch

for metal 0.064 x 1.0 x 4.0 inch; bonded area 0.5 sq. inch

Bonding atmosphere: 72-75°F, 58-62% relative humidity

Test Methods: ASTM D2095, D3164, D1002

HOW TO APPLY ARON ALPHA

Clean the surfaces to be bonded and then apply Aron Alpha. Be sure to apply Aron Alpha to only one of the surfaces to be bonded, preferably the smaller surface, the surface on which the Aron Alpha set time is longer, or the surface looking upward.

A common error in applying Aron Alpha is to apply an excessive quantity of Aron Alpha or to apply too small of a quantity of Aron Alpha in a wide thin film. In the former case, it is waste of Aron Alpha as well as damaging to the appearance of the bonded materials. This may also bring about chlorosis or solvent cracks. In the latter case, the Aron Alpha monomer may harden before the actual bonding starts and this will reduce the bond strength to a great extent. This is particularly the case with rubber materials.

Therefore, make sure that the nozzle of the Aron Alpha container is touching the surface to be bonded so that you can apply an optimum quantity of Aron Alpha from the container. Immediately after that, mate the two surfaces and let the Aron Alpha monomer spread between the two surfaces. It is not necessary to spread the monomer by using a rubbing motion.

Aron Alpha monomer, if kept in the form of a mound on the surface, does not harden for 5 to 10 minutes and retains sufficient bond strength.

OPTIMUM QUANTITY OF ARON ALPHA

With Aron Alpha bonding, the thinner the film of the Aron Alpha monomer on the surface to be bonded, the greater is the resulting bond strength. An excessive quantity of Aron Alpha never helps increase the bond strength. On the contrary, it may bring about chlorosis, solvent cracks, or erosion by the Aron Alpha monomer of the surface to be bonded. On the basis of the value of 5 mg/cm², you can obtain standard bond strengths as shown in the tables above.

Storage

Store product in the unopened container in a dry location.

Humidity

- Avoid moist, humid storage conditions.
- Fasten cap tightly to avoid exposure to moisture.
- Store with desiccant.

Temperature

- Avoid storing at a high temperature.
- When storing ARON ALPHA® for an extended period, refrigerate between 32°F and 40°F.

Sunlight

- Avoid direct exposure to ultraviolet light (keep in light-proof packaging).

Other

- Never store ARON ALPHA® with an accelerator or primer.

Warning

Eye and Skin irritant. Bonds skin instantly. *Combustible* – keep away from heat and flames. For safe handling information on this product, consult the Safety Data Sheet (SDS) before using.

Disclaimer

Please be advised that test results are those which were prepared at Toagosei America's laboratory. The results may vary under actual application conditions.

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.

Material removed from original containers may be contaminated during use. Do not return product to the original container. Toagosei cannot assume responsibility for product which has been contaminated or stored under conditions other than previously indicated.

If additional information is required, please contact your Toagosei Technical Department or Customer Service Representative at 614-718-3855 or 1-800-338-5192 or via email at sales@toagosei.net