

Product name: Aron Alpha Type 221EXC

FEATURES

Fast setting for bonding difficult-to-bond materials such as EPDM, POM(Polyacetal), etc.

PROPERTIES

Liquid State (Before curing)	Appearance	Colorless & transparent liquid
	Base Monomer	Ethyl cyanoacrylate
	Viscosity (cps)	2.0
	Specific Gravity (d ²⁰)	1.05

Solid State (After curing)	Appearance	Colorless & transparent solid
	Specific Gravity (d ²⁰)	1.25

PERFORMANCE

Setting time (sec), bond strength in tension and shear (psi); note:* indicates material failure.

Setting time

Material	Setting time (sec)
Rigid PVC	1
ABS	1
Polycarbonate	1
A-PET	10
POM (Delrin)	15
EPDM	1
Paper	5
Rigid PVC with 0.2mm clearance	60
Steel	5
Aluminum	5

Bonding strength Tension

Material	Bond strength in Tension (psi)
Rigid PVC	5100*
ABS	3600*
Steel	5500
Aluminum	4400

Bonding strength Shear

Material	Bond strength in Shear (psi)
Polycarbonate	1000*
POM (Derlin)	80
POM (Derlin) with PP Primer	470

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 2.0 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

Conditions to consider when storing Aron Alpha

Humidity

Avoid moist, humid storage conditions.
 Fasten cap tightly to avoid exposure to moisture.
 Store it 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.

WARNING

Eye and Skin irritant. Bonds skin instantly. Combustible – keep away from heat and flames. Please read adhesive SSDS 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.