AFINITICA® BXY03

PRODUCT DESCRIPTION

Technology	Cyanoacrylate
Chemical Type	Methoxyethyl Cyanoacrylate
Appearance (uncured)	Transparent liquid
Components	One part
Viscosity	Medium
Cure	Humidity

AFINITICA® BXY03 is a medium viscosity, odourless, non-staining, flexible and extremely fast adhesive. The formulation consistency has been designed for easy application and for high bond strength even for areas that are subject to much flexing and bending. Careful selection of the formulation ingredients ensures that the product does not stain regions close to the adhesive joint. The product is non-irritant.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield, 25 ºC, mPa·s (cP):
Spindle 21, speed 100 rpm 120 to 170

TYPICAL CURING PERFORMANCE

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

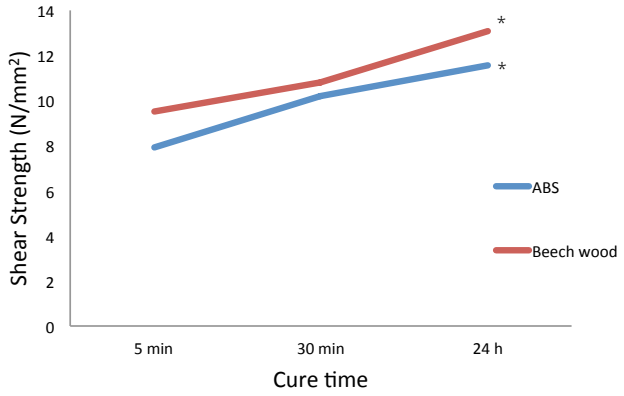
FIXTURE TIMES

Fixture time is the time at which an adhesive bond (250 mm^2) is capable of supporting a 3 kg load for 10 seconds. The fixture time will depend on the substrate. The table below shows the fixture time for different substrates using lap shears.

	Time (s)
Pine Wood	15 – 25
Beech Wood	5 – 10
Oak Wood	25 – 40
ABS	10 – 20
Polycarbonate	20 – 30
Aluminium A5754	5 – 10
Mild steel	5 – 10

CURE SPEED *vs.* SUBSTRATE

The rate and strength of cure will depend on the substrate used. The graph below shows the tensile shear strength developed with time on different materials and tested according to ISO 4587.



* Substrate Failure

TYPICAL PERFORMANCE OF CURED MATERIAL

TENSILE SHEAR STRENGTH

The shear strength will depend on the substrate. The Table below shows the shear strength for different substrates using lap shears according to ISO 4587.

Cured for 24h at 22 ºC

	Strength (N/mm^2)
Pine Wood	11 – 13 *
Beech Wood	12 – 14 *
Oak Wood	10 – 12 *
ABS	11 – 12 *
Polycarbonate	7 – 9 *
Aluminium A5754	4 – 5
Mild steel	8 – 13

* Substrate Failure

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.
For safe handling information on this product, consult the Safety Data Sheet (SDS): SDS242924

Directions for use:

1) Before applying the glue, make sure the gluing surface is clean, dry and free of grease.

2) Apply adhesive to one of the surfaces. Do not use items like tissue or a brush to spread the adhesive.

3) Assemble the parts within a few seconds. The parts should be accurately located, as the short fixture time leaves little opportunity for adjustment.

4) Bonds should be held fixed or clamped until adhesive has fixture.

5) Product should be allowed to develop full strength before subjecting to any service loads (typically 24 to 72 hours after assembly, depending on bond gap, materials and ambient conditions).

6) Optimal Storage: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °C can adversely affect product properties

7) Product shelf-life: 12 months

Conversions:

(ºC x 1.8) + 32 = ºF
kV/mm x 25.4 = V/mil
mm / 25.4 = in
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm^2 x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·mm x 0.142 = oz·in
mPa·s = cP

NOTE

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