AFINITICA® BEMO2020

TECHNICAL DATA SHEET

TDS200402
V3 (MARCH 2017)

AFINITICA® BEMO2020

PRODUCT DESCRIPTION

Technology	Cyanoacrylate
Chemical Type	Methoxyethyl Cyanoacrylate
Appearance (uncured)	Transparent gel
Components	One part – requires no mixing
Viscosity	High (gel)
Cure	Humidity

AFINITICA® BEMO2020 is a transparent gel with fast fixture time. As a Methoxyethyl cyanoacrylate based product, BEMO2020 is an odourless, non-staining, non-irritant, flexible and fast adhesive specially designed for bonding most plastics and various rubbers.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific gravity, 25 ºC, g/cm^3: 1.20
Viscosity, Brookfield, 25 ºC, mPa·s (cP):
Spindle 14, speed 10 rpm 17,000 – 25,000

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	10 – 25
Beech Wood	10 – 20
Oak Wood	10 – 30
ABS	15 – 50
PMMA	20 – 60
Polycarbonate	5 – 15
Stainless Steel A316	5 – 15
Aluminium A5754	10 – 20
Mild steel	10 – 25

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	10 – 12*
Beech Wood	12 – 14*
Oak Wood	9 – 11*
PVC	4 – 6
ABS	9 – 11*
Polycarbonate	5 – 7
Aluminium A5754	6 – 8
Grit Blasted Mild Steel	16 – 18
Mild steel	6 – 10

* 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): SDS242938

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 ºC to 8 ºC. Storage below 2 ºC or greater than 8 ºC 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

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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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