

AFINITICA® ACTIVE SPRAY

**PRODUCT DESCRIPTION**

<b>Technology</b>	Isopropanol Carrier
Appearance	Clear liquid
Viscosity (cP at Room temperature)	1
Flash point (°C)	13 (Flammable liquid)
<b>On Part Life</b>	Maximum 24h
<b>Drying time</b>	Aproximately 30 s

AFINITICA® Active Spray is a surface preparation product which accelerates cyanoacrilates curing and is specially designed for curing AFINITICA® Rapid Assembly on Wood and plastic surfaces. Its long open time and short drying time make the product to be chosen by professionals and DIY enthusiasts. Unlike other accelerators, AFINITICA® Active Spray is non-toxic, so it is very suitable for domestic use. AFINITICA® Active Spray is also particularly suitable for promoting quick adhesion when joining parts are immediately subjected to high stress, like edge coating or gluing shoe soles.

**TYPICAL CURING PERFORMANCE**

AFINITICA® Active Spray accelerates curing process of cyanoacrylates by its application on the surface of any of the substrates to bond. After this, cyanoacrylate adhesive is applied in its regular way and curing process is started when both substrates are joined and pressed firmly. Strength and resistance develop instantly and 80% of maximum resistance is reached after 24 hours.

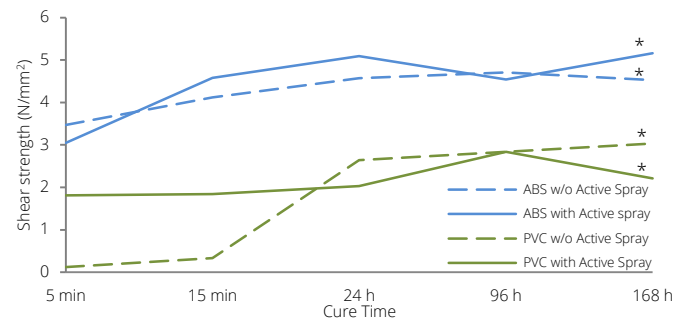
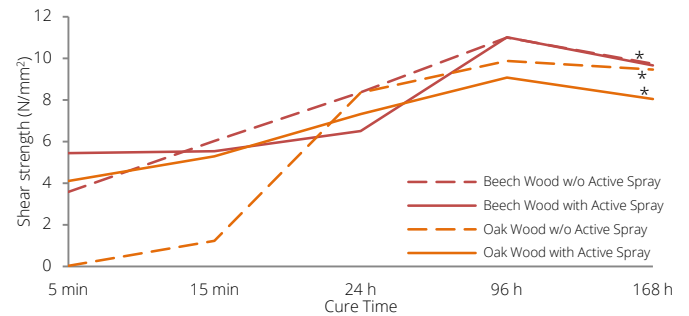
**FIXTURE TIMES**

Fixture time is the time at which an adhesive bond (250 mm<sup>2</sup>) 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)	Time (s) with AFINITICA® Active Spray
Pine wood	90	15
Beech wood	30	15
Oak wood	>300	60
PVC	>300	30
ABS	60	15
Polycarbonate	300	60
PMMA	210	75

**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 °C

	Strength (N/mm <sup>2</sup> )
Pine wood	8 – 9
Beech wood	10 – 13
Oak wood	7 – 8
PVC	1 – 3
ABS	5 – 6*
Polycarbonate	3 – 4

\* 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): SDS242909

**Directions for use:**

- 1) AFINITICA® Active Spray can be used to clean and prepare non-metallic substrates such as plastics, leather, wood, ceramics... for faster assembly. The product should not be used on metallic substrates that do not need activation.
- 2) Spray at least over one of the surfaces to bond from a distance of approximately 20 cm and let it dry for 15-30 s.
- 3) Apply AFINITICA® Rapid Assembly on one of the two surfaces (if a long Open Time is required do it over a non-sprayed surface). For an irregular surface more material may be required to fill all irregular gaps.
- 4) After bringing the second surface into contact, handling strength will be reached instantaneously. AFINITICA® Active Spray is especially suitable to promote rapid adhesion when parts to be bonded are placed under immediate high strain.
- 5) Store bottle upright in a cool and dry environment.
- 6) Product shelf-life: 12 months.

**Conversions:**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{in}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**NOTE**

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