

# AT 1671 - NON-STICK INDUSTRIAL BLADE

## NANO-CERAMIC COATING

## APPLICATION INSTRUCTIONS

### 1. PRODUCT DESCRIPTION

AT 1671 is a high performance, single component coating specifically designed to maximize the performance of cutting surfaces and blades. AT 1671 creates a thin ceramic barrier that reduces friction and improves cutting efficiency. Coated blades will resist the build up of glues and other adhesives keeping the cutting surface clean and effective. AT 1671 is easily applied by wipe and dries in ambient conditions.

### 2. SURFACE PREPARATION

- Intended surface must be clean and free from dust, oils, dirt and any other previous contaminants.

### 3. APPLICATION

- As with any new material, always test application and finished properties on a low value test article or panel before working on valuable surfaces.
- One or two coats will provide necessary performance in the vast majority of applications.
- Mix contents gently before application to ensure that is no separation of the resin system.
- Apply a modest amount of the coating on the surface or on a lint free pad or cloth.
- Use a circular motion to work the coating into the surface of the blade face and edge.
- Use extreme caution when applying the coating on sharp edges. Work down from the blade face to the sharp edge. Never slide along the sharp edge or against it.
- Once any absorption seems to stop, gently glide the wetted applicator over the surface to ensure that there is a complete coverage at 2-3 microns (dry film thickness) on the entire surface of the blade surface.
- Coating will be dry to the touch in about 15 – 25 minutes. A warm airflow (not to exceed 110°F/43°C) will reduce drying time.
- Acceptable cure (cross-linked) properties will be achieved in about 30 minutes. At this point, the coated part may be put in service. However, maximum performance will be achieved by allowing the coating to fully cure prior to use.
- Full cure properties will occur in 24 hours at ambient temperatures.
- Oven curing may also be used to accelerate the process:
  - **Do not** oven cure prior to 20 minutes drying time or achieving a dry to touch surface.
  - Oven cure at 350°F/176°C for 30 minutes (part temperature).
- Allow coated part to cool before putting in service.
- Apply a 2nd coat per instructions above if needed.



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## 4. DRYING AND CURING TIMES

|                    |   |
|--------------------|---|
| <b>Solids</b>      | 12%   |
| <b>Drying Time</b> | <ul style="list-style-type: none"> <li>Dry to the touch in approximately 15-25 minutes at ambient temperatures. Warmer airflow (not to exceed 110°F/43°C) will accelerate dry time. Coated blades may be handled after the coating is dry to the touch. Avoid abrasion and cutting until the blade is fully cured.</li> </ul>   |
| <b>Curing Time</b> | <ul style="list-style-type: none"> <li>Basic cure will be achieved in 30 minutes at ambient temperatures. At this point, the blade may be put into service. Full ambient cure will be obtained after 24 hours at room temperature. If necessary, oven cure at 350°F/176°C for 30 minutes to accelerate curing. Do not expose coated part to temperatures above 110°F/43°C prior to it being dry to the touch. Failure to follow this requirement will prevent the proper cure of the blade and therefore reduce performance.</li> </ul> |

## 5. COVERAGE RATE

- Coverage will be approximately 1,630 square feet per gallon (40 square meters per liter) at dry film thickness of 3 microns.

## 6. STORAGE STABILITY & SHELF LIFE

The shelf life is one year when stored in the original, unopened container. Store containers in a well-ventilated and covered area away from extreme heat and moisture. Contact your ALPHATEK representative if you have any questions about the products or its uses.

## 7. SAFETY

Refer to the Safety Data Sheet for this product prior to use.