

Generation

3M™ Wind Blade Protection Coating

3M™ Wind Blade Protection Coating W4600 Protect your Wind Blades against erosion



The detrimental effects of weathering on the output of wind turbines are much greater than previously known. Damage caused by airborne objects such as sand or rain can reduce the energy output of a turbine by more than 20% per year. With its 3M Wind Blade Protective Coating W4600, 3M has now developed a coating that provides significantly longer-lasting protection than previous coatings. It is a twocomponent polyurethane coating that provides excellent erosion protection in a single layer with static mixing option for easy application.



60-meter long rotor blades on colossal towers are not only a very impressive sight, they also involve a problem that has not been discussed much so far: erosion of the rotor blade surfaces. Every grain of sand and every drop of rain containing contaminants may impact the material of the blade and reduce the efficiency of the wind turbine. In addition to the size of the turbine, its location also plays an important role. Erosion is greatest in offshore and desert areas.

It is, of course, possible to repair erosion damage. This, however, entails comparatively high costs, which significantly worsen the economic efficiency of the turbines. With its 3M Wind Blade Protective Coating W4600, 3M has now developed a coating that protects the surfaces of rotor blades two to three times longer than previous coatings.

Shelf Life

These products have a shelf life of 6 months from date of manufacture when stored in the original, unopened container under the suggested storage conditions.

Storage

Store in original sealed containers between 5°C (40°F) to 30°C (86°F). At storage or transportation conditions below 23°C Part B may appear waxy due to crystallization of components. This is not a quality concern. Heating is necessary to fluidize the crystallized material.

Coverage & Cure

Thickness: 300 +/- 50 microns Coats: One If multiple coats are desired, contact your 3M Technical Service Engineer to discuss.



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