



## **P.F.E. WATERBORNE PHOSPHORESCENT/LUMINESCENCE COATING – PFE-1330P**

### **DESCRIPTION:**

The appearance of color, produced by conventional paints or coatings, results from the selective absorption of light wavelengths in the visible portion of the spectrum. The light wavelengths that are not absorbed are reflected or transmitted, thus giving the sensation of color. This sensation is absent when a visible light source is not present, because there is no light energy to reflect or transmit.

Unlike conventional paints or coatings, PFE-1330P is not a primary light reflector but is a source of light emission. PFE-1330P possesses the ability to absorb certain types of radiant light energy (usually below 4000A and not visible to the eye); it then converts this light energy into longer lengths in the visible spectrum and stores this energy to emit it as visible light. The selective wavelengths, thus emitted, produce the sensation of color and light.

When the emission of luminescent light ceases, with the removal of the exciting energy (the light source), the luminescent material is called fluorescent. If the emission of light continues for an appreciable period of time, after the exciting energy is removed, the luminescent material is known as phosphorescent and has the property of glowing in complete darkness.

PFE-1330P must be exposed to a source of light, to activate its light emission, for a period of at least thirty minutes. After the light source is removed, it will glow in the dark for a period of four to eight hours, dependent on the light sources and the thickness of the coating application.

### **APPLICATION AND MAINTENANCE:**

PFE-1330P will function best when applied over a stark white background. This will tend to make it brighter and cause it to emit light longer, after exciting. Do not use acid based cleaners on this coating. If the application is subject to hand contact, we recommend using our formula AC-1330P. PFE- 1330P is a waterborne system but check the compatibility of any existing coating by applying a test patch. If the patch proves incompatible consult our technical department for solutions. We specify a base coat of PFE-100 white, followed by two coats of PFE-1330P.

PFE-1330P will retain the ability to absorb and emit light for years. The life span will be dependent on the cleanliness of the surface. Light must be able to reach the paint in order to excite it.

### **BRIGHTNESS AND COLORATION:**

The afterglow will continue after sufficient exciting for approximately four to six hours. It will be the brightest for the first thirty minutes of darkness. Brightness is also determined by the viewer's adaptation to darkness. A sudden change from a well-illuminated room, to complete darkness, requires that a viewer's eyes become adapted to the low light levels. The time necessary, to become adapted to the dark may vary a considerable amount from person to person.

### **COLOR:**

The color of PFE-1330P in daylight is an off-white green color. After being excited, in the dark, it becomes a brilliant green color. It meets Air Force specification 14102A, color 61.