

DEWEY ASSOCIATES is an international distributor of **DYMAX** glass bonding adhesives, **DYMAX** ultraviolet curing lamps, and **Spectronics** ultraviolet curing lamps. We sell these products directly to the user or other resellers in small quantities or large.

Ultraviolet adhesives are extremely easy to use and provide very strong, clear and long lasting bonds between glass substrates and many other surfaces. **DYMAX Light-Weld** adhesives only cure when they are exposed to ultraviolet light, so the user can get the materials in position before they begin to bond. **DYMAX** adhesives are solvent-free and environmentally friendly.

DYMAX adhesives sold by DEWEY ASSOCIATES can be divided into three families: **Light-Weld**, **Ultra Light-Weld** and **Multi-Cure**.

DYMAX Light-Weld adhesives cure only when exposed to long-wave (365 nm) ultraviolet light. Long wave ultraviolet light can be provided by the sun or by an ultraviolet curing lamp. The adhesives will cure in a very short period of time, depending on the intensity of the UV light when it reaches the adhesive and the thickness of the cross section of the adhesive to be cured.

DYMAX Ultra Light-Weld adhesives will cure when exposed to either long wave ultraviolet light or "visible" light with a wavelength around 406 nm. This feature often allows an ultra light-weld adhesive to cure even when long wave UV is blocked by a material that absorbs long wave UV light. When exposed to long wave UV, an ultra light-weld adhesive will cure and bond extremely rapidly, often in a mere second or two.

DYMAX Multi-Cure adhesives cure by ultraviolet light, heat or chemical activator. The ability to cure without exposure to UV light provides maximum flexibility in its use. **DYMAX Multi-Cure** adhesives are typically used to bond glass to various metals.

DEWEY ASSOCIATES sells high intensity ultraviolet lamps manufactured by **DYMAX** Corporation and medium and low intensity lamps made by **Spectronics**. Lamps vary in the area they illuminate. A spot lamp may illuminate an area of an inch or less. A medium intensity flood lamp would cover an area up to approximately 8" by 8". A lower intensity

fluorescent bulb UV lamp could light up an area of a few inches by whatever the length of the bulb (a 48" fluorescent UV lamp would illuminate an area of perhaps 8" by 48"). The area of illumination increases as the distance from light source to object increases, but the intensity of the light decreases exponentially as that distance grows. Other factors being equal, a spot lamp is significantly more powerful than a flood lamp, but over a smaller area.

Intensity of ultraviolet light is usually measured in milliwatts per square centimeter (mW/cm²). High intensity UV spot curing lamps manufactured by **DYMAX** can produce a curing intensity of 20,000 mW. A **DYMAX** PC-3 spot curing lamp typically achieves a curing intensity of 2,000 mW. A **DYMAX** 2000 Reflector flood curing lamp will produce a curing intensity of 30-65 mW. A **Spectronics** SB-100PC produces an intensity of 40 mW with a spot bulb or 28 mW with a flood bulb. A **Spectronics** EN-140 can reach .825 mW/cm².

Usually, the intensity of the UV light only affects the speed of the cure. However, the intensity of the UV light may be critical to success in more difficult applications, such as attempting to cure through a medium that reduces the strength of the light passing through it, or which absorbs particular wavelengths, or trying to achieve a tack-free adhesive surface when the adhesive is exposed to air. In any case, speed of cure will be more important in any large project or manufacturing operation.