Product Definitions

Adhesives

ACRYLIC - A structural adhesive capable of bonding a broad range of substrates including most types of plastics and metals both minimally prepared and unprepared. Two-part catalyst cure or one part UV or heat cure available. Good to excellent flexibility and environmental resistance. Fast setting times.

ANAEROBIC - A one-part adhesive/sealant that cures only in the absence of air. Designed for locking screws, nuts, bolts and/or retaining bearings, shafts etc.

CYANOACRYLATE - A one-part adhesive that cures instantly on contact with mated surfaces. High strength, excellent adhesion to a wide variety of substrates. Cyanoacrylates are available in a variety of viscosities, cure speeds, gap-filling capability and surface compatibility.

EPOXY - Available in two-part or one-part, both room temperature and heat curable formulations, epoxy adhesives provide high strength bonds on a wide variety of substrates. The bond can often be stronger than the parts being bonded. Epoxies are very tough with good chemical and environmental resistance. Epoxies come in variable cure speeds and have good void filling capabilities. They are also available with electrically and thermally conductive properties.

HOT MELT - A thermoplastic material that is melted in dispensing equipment and is applied in a molten state. It then wets the substrated surface and as it cools, it solidifies forming a bond. Very fast setting. Not a true structural but has the capability to bond a broad range of substrates.

POLYURETHANE - One or two-part urethane adhesives provide superior bonds with minimal surface preparation for today's high performance thermo sets and thermoplastics. They provide excellent flexibility and durability. Polyurethanes cure via a catalyst, heat or air evaporation. Generally slower to cure with more challenging handling or curing properties.

SILICONE - One-component adhesive/sealant that cures to a tough rubbery solid upon exposure to moisture in the air. Silicone has good resistance to weathering, vibration, moisture and chemicals. Silicones works in a temperature range from -76F to 600F.

SOLVENT BASED - One-part solvent evaporation system with a rubber or plastic base. Contact cement, dip coatings, rubber bonding. Good product for laminating or for covering a large surface area economically.

U.V. CURABLE - Ultraviolet (UV) and visible light curing adhesives are used for bonding, coating, encapsulating, tacking and sealing. These single component, solvent free products cure in seconds when exposed to industrial UV/visible light sources. Some of these adhesives will cure with the light source, an activator or both.

WATER BASED - One-part water evaporation system with medium set time. Water based adhesives can be used in a wide variety of non-structural bonding applications. Excellent for paper, cardboard, wood etc.

Conformal Coatings

ACRYLIC - Acrylic conformal coatings are easy to apply. They dry to the touch at room temperature in minutes, have good electrical and physical properties, and are fungus resistant. Acrylic conformal coatings have low or no exothermal during cure, which prevents damage to heat-sensitive components, and are easy to repair.

POLYURETHANE - Polyurethane conformal coatings provide excellent humidity and chemical resistance plus very good electrical properties for extended periods of time. Most single-component polyurethane conformal coatings require careful application procedures and close control of coating and curing environments. Polyurethane conformal coatings can be burned through with a soldering iron making component replacement fairly easy.

SILICONE - Silicone conformal coatings offer the highest flexibility, high moisture, fungus resistance, chemical resistance and excellent repair characteristics. Silicone conformal coatings offer excellent electrical and thermal properties. Silicone conformal coatings are available as 100% solids - heat-curing liquids, 100% solids - moisture curing liquids and a solvent borne moisture-curing material.

U.V. CURABLE - Many of the above chemistries are available in a U.V curable version which are solvent free products that cure in seconds when exposed to industrial U.V./ visible light sources. Besides acrylics, polyurethanes and silicones, there are epoxy and acrylated-urethane U.V. conformal coatings available.

Potting / Encapsulating

EPOXY - Epoxy potting compounds are available in one or two-component formulas. They offer the widest range of handling and cured properties along with a wide range of viscosities. Epoxies provide excellent adhesion to most surfaces plus excellent resistance to most environments and chemicals. Epoxy potting compounds provide very good electrical properties with minimal or no volatiles during curing.

POLYURETHANE - Polyurethane potting compounds are available in one and two-component formulas. They offer excellent adhesion to most materials along with excellent abrasion resistance. Polyurethanes have good electrical properties along with high impact strength. Excellent low temperature flexibility is provided with an upper service temperature limit of 250F.

SILICONE - Silicone potting compounds are available in 100% solid one and two-component materials with "user-friendly" mix properties. Silicone potting compounds are high in purity, low in toxicity, with outstanding weather resistance. The silicone materials function from -100F to 600F and provide the best thermal cycle capabilities available.

U.V. CURABLE - U.V. Curable potting compounds are available in both one and two-component formulations. These 100% solid materials usually cure within 10-20 seconds when exposed to U.V. or visible light sources. U.V. curable potting compounds provide rapid cure cycles, increased throughput and are available in various chemistries.

Sealants

ACRYLIC - Acrylic sealants exhibit good adhesion to most surfaces and remains ductile in the presence of ultraviolet exposure and other weather conditions. Acrylic sealants are excellent general-purpose materials which are used in many outdoor applications. After cure they can be painted.

POLYSULFIDE - Polysulfide sealants are 100% solid materials available as one or two-part formulations. Polysulfides are very durable used primarily for the aerospace and window industries. These products have excellent resistance to all types of fuels.

POLYURETHANE - Polyurethane sealants are mostly one-part materials that show excellent adhesion and elongation. Polyurethane's are non-corrosive, paintable and very flexible. Polyurethane's will adhere to most substrates, perform well under a wide temperature range and exhibit resistance to many chemicals and weathering.

SILICONE - Silicone is the multi-purpose sealant that has the largest operating temperature range (-76F to 600F). One-component silicone sealants cure to a touch rubbery solid when exposed to moisture in the air. Silicone sealants are excellent general-purpose sealants that have good resistance to weathering, vibration, moisture and ozone. Silicone sealants are generally easy to extrude and handle.

Tapes

DOUBLE-COATED INDUSTRIAL TAPES - A complete and versatile line of acrylic and rubber based adhesive tapes are available. These tapes are available in various widths and thickness to match any application. Double-coated tapes can be used for bonding, sealing and gap filling. 3M's VHB tape will work in many applications to replace mechanical fasteners.

PACKAGING TAPES - We carry a full line of 3M packaging tapes for carton sealing, along with masking tapes and filament tape.

SPECIALTY TAPES - Single coated tapes for many of the product needs that may arise for you. The following is a sample of the types available: vinyl and polyurethane tapes, polyester tapes, metal foil tapes, protective tapes and Bumpon protective products, etc.