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Patent-Pending Adhesive Reported to Solve Nylon Bonding Problems

Permabond's new adhesive is reported to produce high-strength bonds on nylon

SOMERSET, N.J.—Nylon is a versatile, high-strength, lightweight, and low-cost plastic, but it is also very challenging to bond. A new patent-pending adhesive for bonding nylon, recently introduced by Permabond, may help solve that problem.

Permabond's development chemists formulated TA4660, a structural acrylic adhesive that is reported to produce high-strength bonds on filled and unfilled nylon 6 and 6,6 with no pretreatment required. Nylon bonded with TA4660 failed before the adhesive in pull tests, the company said in a release.

TA4660 is a two-part adhesive that is easy to dispense via a dual cartridge with static mixing nozzles. Complete cure is achieved at room temperature, so there is no need for hand mixing, weighing, or oven curing, according to Permabond.

The ISO 9001 certified company described Permabond TA4660 as ideal for bonding nylon to nylon, and adhering nylon to various metals. The adhesive forms a high-strength bond on aluminum, steel, and many other metals. Its toughened matrix helps provide high peel and impact strength. Bonds have good strength retention at high temperature and absorb differential thermal expansion and contraction stress without causing the bond to fracture, the company said.

Permabond is a manufacturer, formulator, and innovator of engineering adhesives and sealants for assembly, manufacturing, repair, and maintenance. Its products are sold worldwide through authorized distributors. ■

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