

TECHNICAL UPDATE - TU-5002

SUBJECT: TPE Jacketing Material

From time to time we get asked about long term environmental testing on our jacket materials. We recently completed a thermal aging test on our flame retardant TPE jacketing material. The test was run to see what happened to a bundle jacket after exposure to high temperatures for an extended period of time.

We took a sample of 22XP-41A35 with a FR-TPE jacket, bent it to the minimum bend radius, then placed it in an air-circulating oven at 250°F for six months. The aging temperature was 30°F above the maximum rated temperature for this material. After aging, the bundle was straightened out, then subjected to impact and crush tests. These tests simulated moving the bundle, dropping a tool on the jacket, and walking on the bundle; all conditions that do occur in a chemical plant. The only thing that was not “real world” was the aging temperature.

Examination of the jacket after the tests showed no evidence of cracking or other damage to the material. We feel this shows the real toughness of this jacket better than laboratory material tests.