Chute Protector Comparison and Tests

There are chute protectors and there are chute protectors. The performance of chute protectors can vary according to:

1. The material: Kevlar™ offers greater heat resistance than Nomex™
2. The thickness of the material. The thicker the material, the greater the heat protection.
3. Event specific factors like the distance between the protector and the ejection charge, the amount of ejection charge, and so on.

All these factors make it hard compare the baseline performance of one chute protector to another. So we conducted a controlled test of two widely-used materials for chute pads; a yellow Kevlar twill 7.5 oz and an orange ripstop NOMEX 6.0 oz.

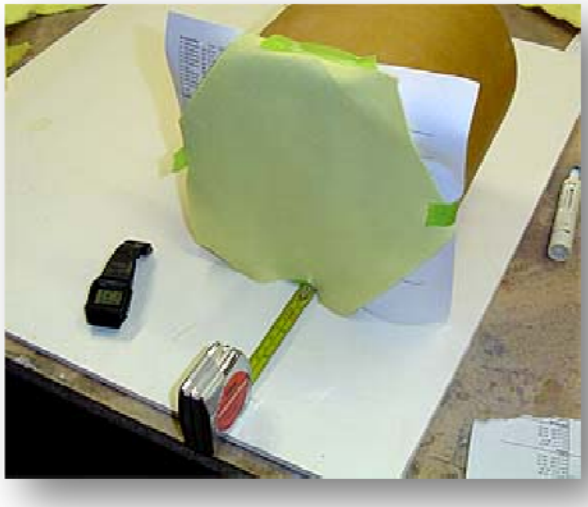
A CONTROLLED TEST COMPARING Protectors made of Nomex™ To Protectors made of Kevlar™

The materials:

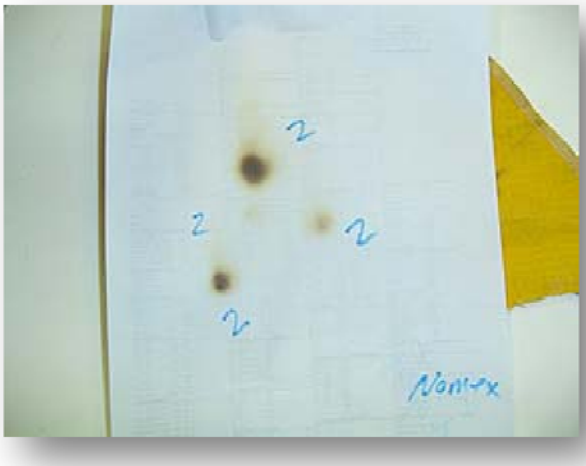
1. Kevlar® twill 7.5 oz
2. Nomex™ ripstop 6.0 oz

Burn source: Benzomatic propane torch
Distance of flame to material: 4"

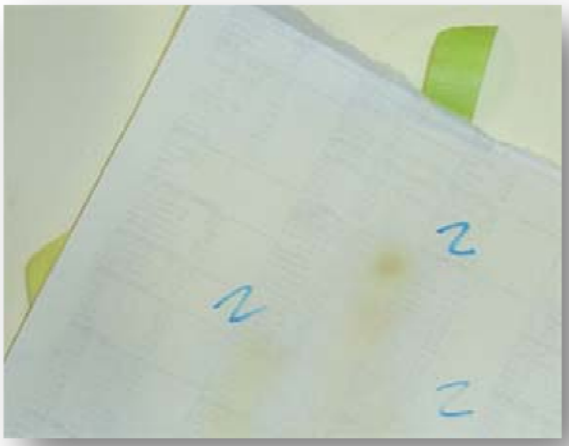
Details: Each material (Nomex™ and Kevlar®) was held at a constant 4" from the flame source. The materials had a sheet of standard photocopy paper attached to the rear side. The material was exposed to the flame for varying times, and then the paper on the rear side was examined for burn marks. The torch was lighted and left on in a constant setting throughout the test. See pictures of results below: The pictures of the test results were not modified.



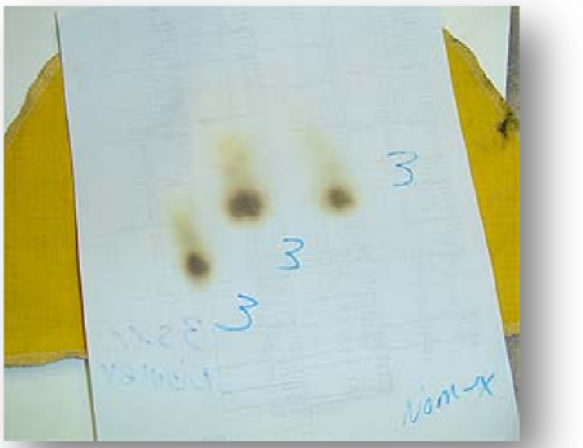
THE RESULTS



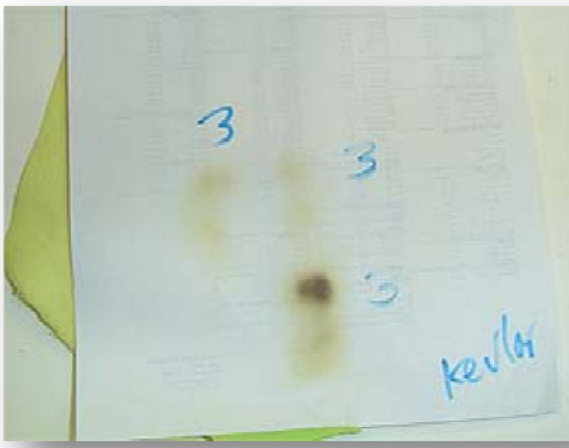
Burn marks on Nomex™-Protected paper after 2 second burn.



Burn marks on Kevlar™-Protected paper after 2 second burn. Again, the burns marks are substantially less than those with the Nomex™ sample.



Burn marks on Nomex™ Protected paper after 3 second burn.



Burn marks on Kevlar® Protected paper after 3 second burn. Again, the burns marks are substantially less than those with the Nomex™ sample.

YOU DECIDE: WHICH MATERIAL SHOULD PROTECT YOUR PARACHUTE?

Kevlar® chute protectors.....only from Giant Leap Rocketry