

# Superior Defense and Comfort for High-Performance Apparel and Accessories

## NEW Dow Corning® Active Protection System TP8-001

### Key features and benefits

The Active Protection System offers features and benefits that other armor systems simply cannot achieve.

- **High impact performance**

TP8-001 absorbs and dissipates energy, greatly reducing impact forces transmitted to the body.

- **Flexible**

TP8-001 is totally flexible, giving the wearer great freedom of movement.

- **Impact protection at high and low temperatures**

TP8-001 protects at high (+40°C) and low (-25°C) temperatures.

- **Breathable**

TP8-001 is based on an open structure, allowing airflow around the body for ultimate comfort.

- **Washable**

TP8-001 can be washed more than 20 times at 40°C with no loss of impact performance properties.

- **Lightweight protection**

Due to its superior performance, less TP8-001 is required, permitting lower-weight protection systems.

- **Customizable**

Available in sheet form, TP8-001 can be cut into different shapes and sizes. You can create unique and stylish designs with protection either removable or fully integrated into the garment wherever you want it. Layers can be built up to maximize protection for vulnerable parts of the body. As required, TP8-001 can be made available in a variety of weights, thicknesses, and colors.

### What is the Dow Corning® Active Protection System?



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The Dow Corning® Active Protection System is a premium patented impact protection technology that delivers unprecedented levels of impact safety **and** comfort for the wearer.

Unlike bulky hard-armor component systems, the Active Protection System technology can be incorporated directly into garments and accessories to shield the wearer against high-energy impacts. With the Active Protection

System, you can now offer your customers a truly revolutionary advancement in protective apparel.

A range of quite different Active Protection System products is available, allowing you to select the best material for optimum comfort and protection in your target application. Active Protection System TP8-001, based on thermoplastic technology, provides:

- >> Exceptionally good impact protection at high impact energies
- >> Comfort
- >> Freedom of movement
- >> Washability
- >> Performance at high and low temperatures

### Typical properties

Dow Corning® Active Protection System TP8-001	
<b>Physical Characteristics</b>	
Width	1000 mm
Thickness	8 mm
Color	Different colors are available. Please let us know your requirements.
Weight	2-3 kgm <sup>-2</sup>
<b>Test Results and Attributes</b>	
EN1621-1 Motorcyclist limb protection standard* (50 joules)	Mean ~12.5 kN (2 layers)
EN1621-2 Motorcyclist back protection standard* (50 joules)	Mean ~13 kN (2 layers)
Surface softness	Soft and flexible
Breathability	Open structure
Washability at 40°C	> 20 washes

\*Data generated in Dow Corning laboratories.

SUPERIOR DEFENSE AND COMFORT

**DOW CORNING®**  
**ACTIVE PROTECTION SYSTEM**

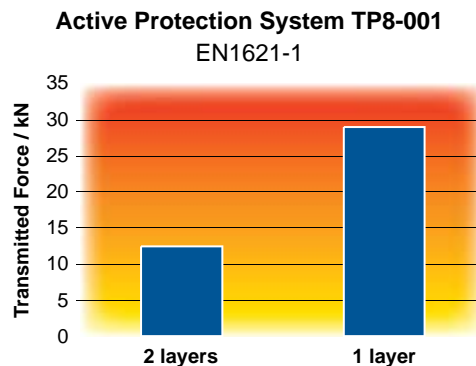
## Suitable applications

Active Protection System TP8-001 works at a range of different impact energy levels generated by different types of collisions, impacts, or falls. It is excellent for use in any activity where there is a risk of a high-speed fall or collision to protect the back, knees, shoulders, hips, or elbows:

- >> Motorcycling, snowboarding
- >> Mountain biking, BMX
- >> Base Layer Protection for contact sports such as soccer, rugby, American football, basketball, baseball, hockey, etc

For limb protection, either 1 or 2 layers of TP8-001 can be employed, depending on the level of protection required. Both 1 and 2 layers pass the high-energy motorcycle standard EN1621-1 (see graph). In the case of contact sports where the energy of collision is much lower, just 1 layer of TP8-001 is envisaged.

For back protection, 2 layers are recommended for EN1621-2 Level 1 protection. We expect to be able to talk to you very shortly about a modified version of TP8-001 that reaches Level 2 back protection.



Either one or two layers of Active Protection System TP8-001 can be utilized to pass EN1621-1.

Different applications will have different protection and comfort requirements. Therefore different weights, thicknesses and colors of Active Protection System TP8-001 can be discussed to permit tailoring to your specific application needs. Please tell us about your needs.

Active Protection System TP8-001 is available in sheet form. It can be cut into any desired shape, then built up in layers and integrated directly into the garment. You can easily and quickly build prototypes in-house for testing and trials.

Attaching the material to the outside of the garment is not advised.

## Contact us

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