

Superior Defense and Comfort for High-Performance Apparel and Accessories

NEW Dow Corning® Active Protection System S7-005

Key features and benefits

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

- **High impact performance**

S7-005 absorbs and dissipates energy, greatly reducing impact forces transmitted to the body.

- **Flexible**

S7-005 is totally flexible, giving the wearer great freedom of movement.

- **Protection at high and low temperatures**

S7-005 shows no impact performance losses at high (+40°C) and low (-20°C) temperatures.

- **Breathable**

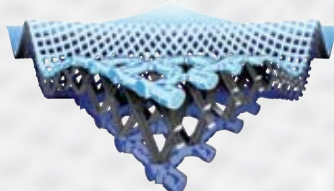
S7-005 is based on an open structure, allowing natural ventilation and airflow around the body for ultimate comfort.

- **Washable**

S7-005 can be washed more than 50 times at 40°C with no loss of impact performance properties.

- **Customizable**

S7-005 is a textile. It can be cut into different shapes and sizes. You can create unique and stylish designs with protection 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, S7-005 can be made available in different weights and colors.



Cross section of the fabric.

What is the Dow Corning® Active Protection System?



AV12981

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

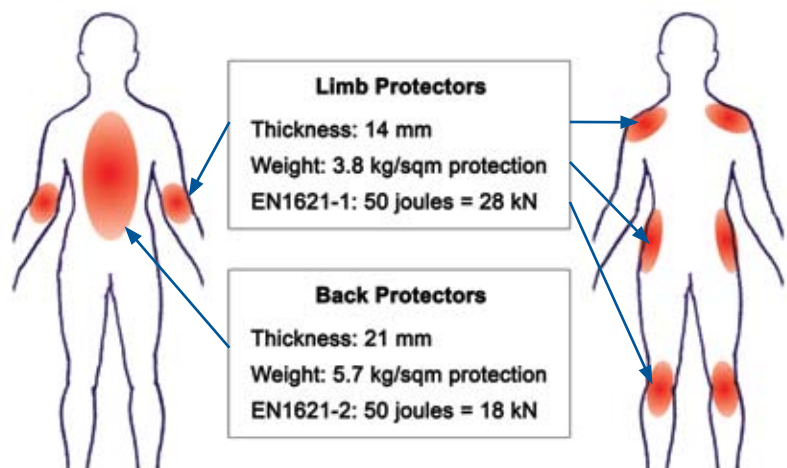
Unlike bulky hard-armor component systems, the Active Protection System technology can be sewn directly into garments and accessories to shield the wearer against high-energy impacts.

As a versatile fabric technology, it will integrate easily and quickly into standard manufacturing processes. With the Active Protection System, you can now offer your customers a truly revolutionary advancement in protective apparel. Active Protection System S7-005 particularly provides:

- >> Superior protection at medium- and high-impact energies, 15 to 50 joules
- >> Outstanding comfort
- >> Freedom of movement
- >> Great washability
- >> Performance at high and low temperatures

Independently tested, proven technology

Independent testing by SATRA, a UKAS-accredited laboratory, proves the Active Protection System passes the European motorcycle impact norms, EN1621-1 for limbs and EN1621-2 for back protection.



Examples of use of Active Protection System S7-005 in applications such as motorcycling, mountain biking, and snowsports.

SUPERIOR DEFENSE AND COMFORT

DOW CORNING®
ACTIVE PROTECTION SYSTEM

Typical properties

Dow Corning® Active Protection System S7-005	
Physical Characteristics	
Width	1300 mm
Thickness	7 mm
Color	Different colors are available. Please let us know your requirements.
Weight	1.9 kgm ⁻²
Rolls	~20 linear meters
Test Results and Attributes	
EN1621-1 Motorcyclist limb protection standard* (50 joules)	Mean ~28 kN (2 layers)
EN1621-2 Motorcyclist back protection standard* (50 joules)	Mean ~18 kN (3 layers)
Surface softness	Soft and flexible
Breathability	Open structure allowing airflow
Washability at 40°C	> 50 washes
Washability at 95°C	> 25 washes

*Data generated in Dow Corning laboratories.

Suitable applications

Active Protection System S7-005 works at a range of different energy levels representing different types of collisions, impacts, or falls. The fabric is excellent for use in any activity in which the wearer would benefit from superior impact protection, breathability, and flexibility, especially those applications where the protection is worn close to the skin and needs to be washed regularly:

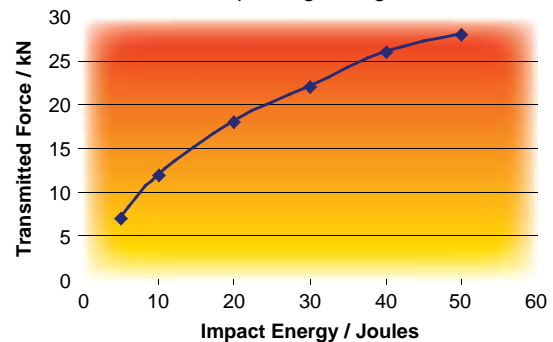
- >> Body Armor for high-energy falls such as snowboarding, mountain biking, motorcycling, BMX, etc.
- >> Base Layer Protection for contact sports such as soccer, rugby, American football, basketball, baseball, hockey, etc.
- >> Personal Protective Equipment

Different applications will have different requirements. Different weights and colors of Active Protection System S7-005 may be possible to allow tailoring to specific applications. Please discuss your needs with us.

Active Protection System S7-005 is available on rolls with a release liner. The fabric 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. There is no need to maintain stocks of components in multiple sizes and configurations.

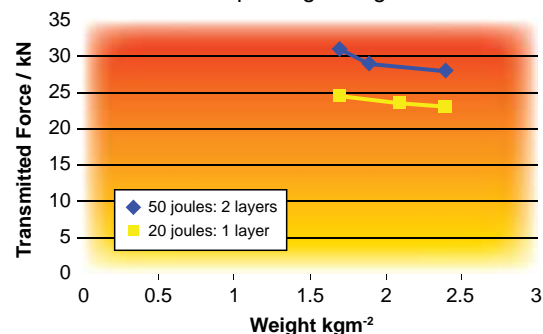
Attaching the material to the outside of the garment is not advised.

Impact Protection Performance Two layers Active Protection System S7-005 EN1621-1 impact rig configuration



Two layers of Active Protection System S7-005 tested according to the EN1621-1 standard at varying impact energies. Impact energy is varied by altering the dropping height. Weight of S7-005 tested = 1.9 kgm⁻².

S7-005 Impact Protection Variation in coat weight and number of layers EN1621-1 impact rig configuration



By varying the weight and the number of layers, different levels of protection can be achieved.

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