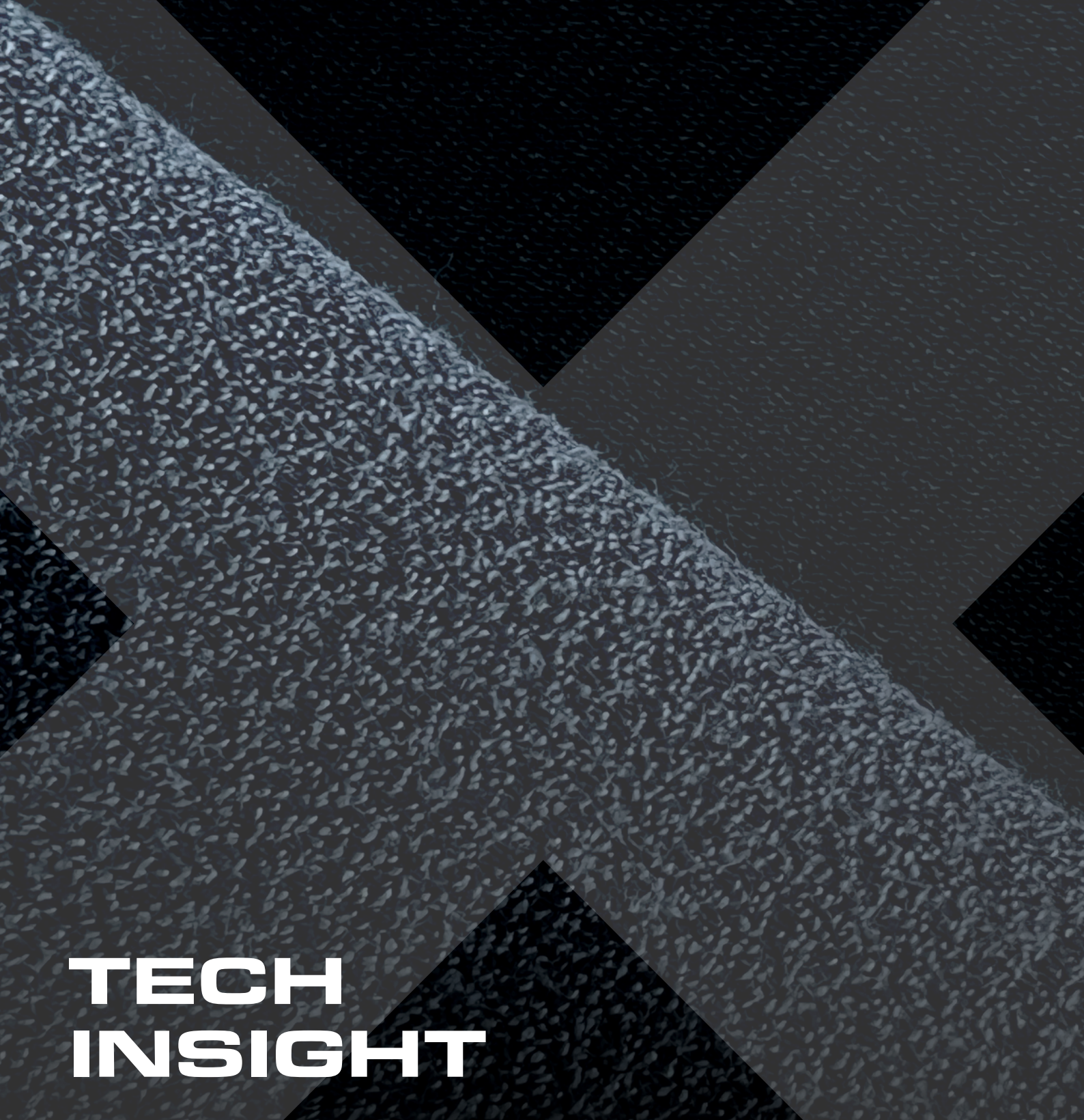




TECH INSIGHT

IBQ-MEC-526

**ENGINEERED FOR PROTECTION.
DESIGNED TO MOVE.**

YOU DO. WE PROTECT.

**IBQ**[®]
TEXTILES PROTECTING LIVES

AIRBAG EXPANSION PANELS

BALANCING PROTECTION AND MOBILITY IN MOTORCYCLE

When designing motorcycle garments, manufacturers face a constant challenge: maximizing protection without restricting rider movement. High abrasion resistance is essential in impact zones, while flexibility is equally important for rider comfort, precise body positioning, and maintaining full control of the motorcycle. Modern motorcycle suits have added another layer of complexity by integrating airbag systems, requiring garments to expand instantly during deployment without compromising protection. This is where advanced stretch reinforcement panels have become a fundamental component of modern motorcycle apparel.

PROTECTION WITHOUT RESTRICTING MOVEMENT

Motorcycle garments operate in one of the most demanding environments in technical apparel. Riders continuously change position, lean aggressively through corners, and place constant stress on areas such as the back, shoulders, elbows, knees, and crotch. While leather remains the benchmark for abrasion protection, it offers limited flexibility.

To achieve this, manufacturers have traditionally relied on accordion leather panels. These expansion zones are created by folding leather into pleats that are stitched together with elastic yarns. During normal riding, the pleats remain compressed, allowing the suit to fit closely to the rider's body. As the rider moves, or when additional expansion is required, the pleats unfold while the elastic stitching stretches, providing the extra volume needed for mobility.

Although highly effective, this solution comes with several drawbacks. Accordion panels require significantly more leather than a flat construction, increasing material consumption, manufacturing complexity, and production costs. The multiple layers also add weight and thickness while limiting breathability. In high performance riding, where every gram influences rider fatigue and every degree of ventilation affects comfort and concentration, these limitations have driven the search for lighter, thinner, and more breathable alternatives.

EXPANSION PANEL

Strategically placed textile panel on the lower back for maximum freedom of movement and comfort.

TEXTILE PANEL

IBQ-MEC-526 a durable, flexible textile material that provides optimal protection, stretch and long-lasting wearing comfort.



BUILT FOR MOTORSPORTS

Whether competing in MotoGP, pushing limits during an amateur track day, or covering thousands of kilometres on a touring motorcycle, today's riders demand apparel that balances protection, mobility, and comfort. Continuous body movement, aggressive riding positions, repeated mechanical stress, and the possibility of high speed impacts mean every component of the garment must contribute to overall performance. Materials used in expansion and reinforcement zones therefore need to deliver far more than stretch. They must combine exceptional abrasion resistance, tear strength, high elastic recovery, and long term durability while remaining lightweight and comfortable enough for prolonged use.

IBQ-MEC-526

IBQ-MEC-526 has been engineered as a next generation alternative to traditional accordion leather. Its 450 gsm double weave construction combines a highly abrasion resistant outer face with a soft cotton backing, delivering exceptional resistance to abrasion, tearing, and snagging while maintaining excellent next to skin comfort. With 97% recovery according to EN ISO 20932-1 and AAA Zone 2 impact abrasion performance according to EN 17092, it provides the controlled elasticity required for rider mobility and airbag expansion while reducing weight, bulk, and leather consumption. The result is a lighter, more breathable, and more comfortable solution for reinforcement panels, expansion zones, and next generation motorcycle apparel.

PROTECTION THAT MOVES WITH THE RIDER.

The best motorcycle garment is not simply the one that offers the highest abrasion resistance. It is the one that allows the rider to move naturally, enables integrated safety systems to perform exactly as intended, and continues protecting under the most demanding conditions. By combining exceptional durability, controlled elasticity, reduced weight, and superior comfort, IBQ-MEC-526 demonstrates how advanced textile engineering is redefining the future of motorcycle protection.

MOVE FREELY. PROTECT COMPLETELY.