



REGULATORY

UNE-EN 17092

**PROTECTIVE GARMENTS FOR MOTORCYCLE
RIDERS**

**THE STANDARD BEHIND CE-CERTIFIED
MOTORCYCLE PPE**

YOU DO. WE PROTECT.

X IBO®
TEXTILES PROTECTING LIVES

PROTECTIVE GARMENTS FOR MOTORCYCLE RIDERS

UNE-EN 17092

Motorcycle protective clothing is designed to reduce injury during road accidents by resisting abrasion and impact. UNE EN ISO 17092 is the European standard that defines the performance requirements and test methods for motorcycle garments intended for use on public roads. Rather than assessing only the fabric, the standard evaluates the complete garment, including seams, closures, impact protector pockets and construction details, to ensure consistent rider protection. Garments that meet these requirements receive CE certification and are classified according to their level of protection. Unlike industrial PPE standards, UNE EN ISO 17092 focuses specifically on the mechanical hazards associated with motorcycle accidents, including abrasion against road surfaces, tearing, burst strength and compatibility with impact protectors.

CE CERTIFICATION PROTECTION LEVELS

UNE EN ISO 17092 classifies motorcycle garments according to their intended use and protective performance, with certification levels based on abrasion resistance, tear strength, seam strength and structural integrity across different risk zones. The certification applies to the complete garment rather than the fabric alone, meaning that materials, seams, construction, closures and overall garment design are all evaluated as part of the certification process. While individual textiles cannot be CE certified on their own, they can be tested against the relevant performance requirements to determine whether they are suitable for use in garments targeting a specific certification level.

The standard divides garments into three abrasion risk zones to reflect the likelihood of contact with the road during a crash. Zone 1 includes the highest risk areas, such as the shoulders, elbows, hips and knees, and therefore requires the greatest level of abrasion resistance. Zone 2 covers areas exposed to moderate abrasion, while Zone 3 represents the lowest risk areas. The required performance in each zone increases with the garment's certification level, ensuring protection is concentrated where it is needed most.

AAA

The highest level of protection under the standard. Designed for riders exposed to the greatest risks, including high speed road riding and track use, with the highest abrasion resistance requirements across all risk zones.

AA

An intermediate level intended for touring and everyday road riding, offering an excellent balance between protection, comfort and mobility while maintaining high performance in the required abrasion zones.

A

The entry level certification for complete motorcycle garments. Designed primarily for urban commuting and lower speed riding, where comfort and flexibility are prioritised while still providing certified protection.

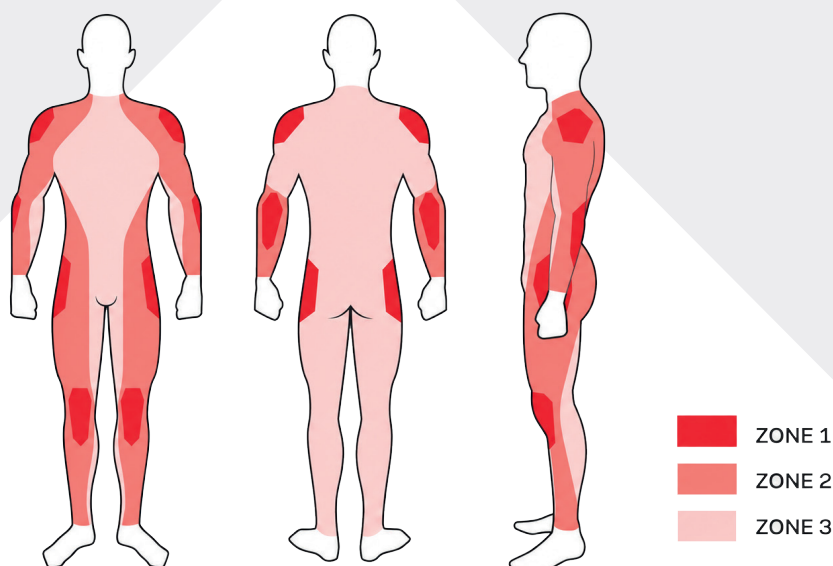
Class B

Garments that provide abrasion protection equivalent to Class A but are supplied without impact protectors.

Class C

Garments designed solely to hold certified impact protectors in place, such as armoured undergarments.

THE RISKS ZONES



DARMSTADT ABRASION TEST

THE KEY PERFORMANCE TEST

One of the principal tests within UNE EN ISO 17092 is the Darmstadt abrasion test, developed specifically to simulate the friction generated during a motorcycle slide on asphalt. During the test, fabric specimens are mounted onto a rotating holder and brought into controlled contact with an abrasive concrete surface, measuring how long the material resists abrasion before developing a hole. Unlike conventional textile abrasion methods, the Darmstadt test recreates the high energy conditions experienced during real motorcycle accidents, making it one of the most representative assessments of rider protection.

In addition to abrasion resistance, the standard also evaluates tear strength and seam strength. Tear strength measures the force required to propagate a tear in the fabric itself, ensuring the material resists ripping during an accident. Seam strength assesses the ability of stitched garment assemblies to remain intact under load, preventing critical seams from failing during impact or sliding. Higher certification levels require greater performance in all three areas, ensuring garments maintain their protective integrity in the highest risk zones.

FROM LABORATORY TO THE ROAD

SELECTING THE RIGHT PROTECTION

Choosing motorcycle protective clothing involves more than selecting a CE certified garment. The appropriate certification level should match the rider's intended use, riding conditions and typical speeds. Class A garments are generally suitable for urban commuting, while AA certified garments provide an excellent balance of protection and comfort for touring and everyday road riding. Riders who regularly travel at higher speeds or participate in track activities should consider AAA certified clothing for the highest levels of abrasion resistance and structural performance. Understanding these classifications enables riders and manufacturers to select garments that provide the right balance of protection, comfort, weight and freedom of movement for their intended application.

BEYOND CERTIFICATION

PERFORMANCE IN REAL RIDING CONDITIONS

Laboratory testing provides repeatable and objective performance data, but real world protection also depends on factors such as garment fit, correct sizing, proper use of certified impact protectors, maintenance and overall garment condition. Protective clothing should therefore be considered as a complete system, where certified materials, intelligent garment engineering and correctly positioned armour work together to deliver reliable protection and reduce injury risk during an accident.

ENGINEERED FOR RIDER PROTECTION

UNE EN ISO 17092 establishes a consistent framework for evaluating motorcycle protective clothing through scientifically validated testing methods for abrasion resistance, tear strength, seam strength and impact protector compatibility. By defining measurable performance requirements and clear certification levels, the standard enables manufacturers to develop garments that deliver reliable protection while maintaining the comfort, durability and functionality required for everyday riding.

At IBQ Textiles, our motorcycle performance fabrics are developed with these requirements in mind, providing the durability, abrasion resistance and quality needed for demanding motorcycle applications.



Because rider protection begins with engineered textiles.



**YOU DO.
WE PROTECT.**