

E-shower evaluation

ENHANCED WATER RESISTANCE TESTING FOR THE WHOLE GARMENT

Water resistance is a critical feature for wet-weather clothing, protective gear and workwear. Effective water-resistant apparel systems typically consist of a waterproof outer layer, a thermal insulating mid-layer, and a moisture-managing base layer.

While standard waterproof property tests focus solely on raw materials, they often overlook essential garment design elements such as construction, seam types, and additional components. Our E-shower evaluation solution offers whole-garment water resistance testing for ready-to-wear apparel.

SGS E-shower evaluation

Utilizing the Manikin Edward Wetting Distribution and the Edward Performance Index (EPI)[®], our E-shower evaluation solution provides a comprehensive analysis of a garment's water resistance properties. This approach measures wetting distribution and evaluates the protective performance of apparel under simulated rainfall.

Key Features

- **Water ingress monitoring:** Equipped with sensors to detect water penetration throughout the garment
- **Wetting distribution analysis:** Uses hygroscopic underwear to capture and record water distribution across the garment
- **Prolonged exposure:** Simulates extended exposure to rainfall for up to one hour
- **360° rotation platform:** Ensures complete garment exposure to water spray
- **Vertical spray simulation:** Replicates medium to heavy rainfall conditions
- **Horizontal spray and wind system:** Simulates storm conditions, including wind-driven rain

Benefits

- Enhance garment designs by identifying areas prone to water ingress
- Validate performance claims regarding water resistance
- Classify garments as water-resistant only when fabrics, components and seams effectively prevent water penetration

WHY CHOOSE SGS?

We are the world's leading testing, inspection and certification company. With a global network of state-of-the-art laboratories and a team of dedicated professionals from diverse disciplines, we deliver comprehensive physical, chemical and functional testing for components, materials and finished products. Our expertise ensures your company meets the highest standards of quality, safety, sustainability and compliance with international, industrial and regulatory requirements. In the end, it's trusted because it's tested.

For more information or support regarding program development, please contact: Global.SL.DAMO.Platform@sgs.com