



HEIQ[®] ECO DRY

**Brave the elements but
stay dry – ecologically**

**Durable Water Repellence (DWR)
without fluorine**

- High-performing, sustainable and durable water repellency
- No fluorine: no PFOA, no PFOS
- Formaldehyde-free
- Exceptional efficiency and durability (100% DWR performance up to 50 washings depending on fiber type)
- Complies with EU REACH, US TSCA, JP METI, ZDHC and most RSL regulations
- Preserves perfect breathability and soft handfeel
- High abrasion resistance
- Applicable to cellulose, synthetics and blends

What does it do?

HeiQ Eco Dry is an innovative, eco-friendly and non-PFC based repellent textile technology that provides protection against water and water-based stains. Bio-inspired HeiQ Eco Dry keeps garments ecologically dry and equips textiles to handle wet weather conditions.

What is it for?

HeiQ Eco Dry is ideally suited for outdoor jackets, windbreakers, hiking pants, fleece and footwear. That's good news for outdoor enthusiasts worldwide, who can look forward to staying dry no matter how wet and wild the weather gets.

**SWISS
TECH
INSIDE**



OEKO-TEX[®]
CONFIDENCE IN TEXTILES

HeiQ Eco Dry Eco-friendly water-repellency

Growing demand for non-PFC DWR – consumer perception goes green!

According to a study on outdoor jacket buying patterns in 2015, up to 45% of consumers associate the use of PFCs with environmental pollution, harm to humans and aquatic life, and lack of biodegradability.*

Today's consumers carefully check the tags of clothes before committing to a purchase. Consumer and environmental advocacy organizations aggressively target the reputation of brands who keep using PFCs.

* Study by de Montfort University, School of Fashion and Textiles, published by the European Outdoor Group, October 2015



Learning from nature – HeiQ Eco Dry

The HeiQ Eco Dry product family provides a safe and environmentally sustainable technology – proactively addressing brands' corporate and social responsibility objectives and reputational risk. HeiQ offers effective non-PFC DWR treatments that are inspired by nature, e.g. the natural repellency of duck feathers.

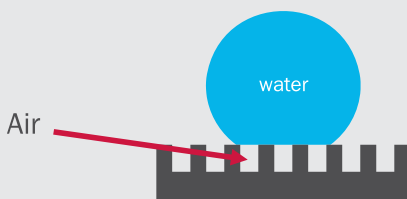
HeiQ Eco Dry imitates the efficiency of a duck's feathery coat – water-repellency that does not rely on fluorocarbons. Just as duck feathers achieve natural water-repellency through interface chemistry and surface structure, fabrics treated with HeiQ Eco Dry are kept dry and clean, with water droplets carrying away dirt by simply rolling off the fabric.

HeiQ offers the following repellency performance test methods for your textiles:

- Spray test (AATCC 22)
- Bundesmann rain test (ISO 9865)
- Static Roll-off angle test
- Water pressure (water column) test (ISO 811/JIS L 1092 A/AATCC 127)
- Aqueous liquid repellency (AATCC 193)
- Soil release test (AATCC 130)
- Water vapor transmission rate (JIS L 1099)
- Water vapor resistance (ISO 11092/ASTM F1868/JIS L 1099 C)
- Air permeability (ASTM D737/JIS L 1096)

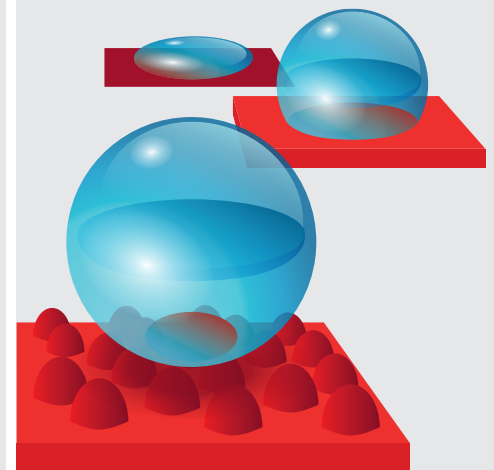
Next generation water-repellency inspired by nature

The aim of water-repellent technologies is to minimize the contact area between water and the textile fabric, resulting in an increased contact angle. Hydrophobicity can be achieved when cohesion of the liquid water is bigger than its adhesion to the textile. With the help of HeiQ Eco Dry the surface energy properties on the textile fabric are modified and the surface tension strongly lowered, thereby providing a reduced adhesion of the water droplet. The repellency of a fabric is further enhanced by the microsized 3D structure on its surface. By introducing air at the surface interface the contact area on the textile is further reduced and DWR is increased.



Structure can further reduce contact between substance and surface
→ higher repellency

Cassie, A. B. D., and S. Baxter. "Wettability of porous surfaces." Transactions of the Faraday Society 40 (1944): 546 551.



Watch the video!