

#### FRAUNHOFER INSTITUTE FOR INTERFACIAL ENGINEERING AND BIOTECHNOLOGY IGB







# ICE-FREE WINTER SPORTS AND OUTDOOR EQUIPMENT

### Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB

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#### **New surfaces and coatings**

- Ice-repellent micro- and nano-structured plasma coatings and material surfaces
- No freezing of the coated surface as it remains in a supercooled state even when the water freezes

## **Advantages and characteristics**

- 90% reduction of ice formation
- Weather-resistant, dirt-repellent and easy to clean
- Environmentally friendly, inexpensive production
- Easy to apply on all materials (e.g. paints and varnishes, metals, plastics) as a self-adhesive film or direct coating





## USES AND FIELDS OF APPLICATION

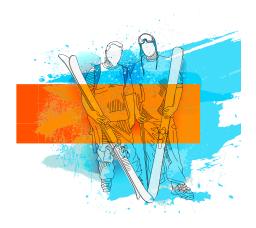


#### **Innovative surfaces**

- Winter sports equipment
- Touring skis, alpine skis and snowboards
- Ski skins and bindings
- Winter sportswear and accessories
- Shoes and boots
- Goggles, glasses and helmets



- Tents, rucksacks, accessories
- Textiles



#### **Industrial**

- Aircraft
- Wind power plants and rotor blades
- Solar modules
- Buildings and facades
- Car bodies, windshields