



# ISPO Top of Innovation Award



**Largest Energy Saving Technology** in Global Textile Industry

## Revolutionary Down Bag Technology (Patent-pending)

Date issued: 2021-01-09

### Applications (Typical)

Apparel, Bedding products, (Comforters, Pillows, etc.), Sleeping bags, etc., which contain natural

### Composition

100% Polypropylene

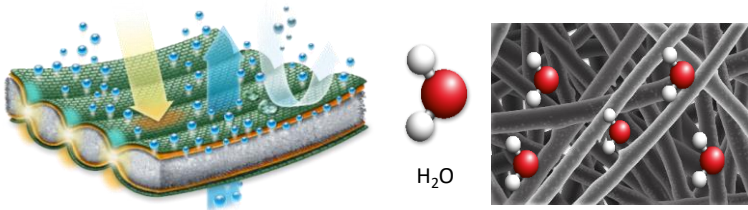
### Flammability

Class 1, Normal according to US Federal Flammable Fabrics Act Procedure in 16 CFR Part 1610.

### Technology Composition

#### Patent-pending iDown™ Technology

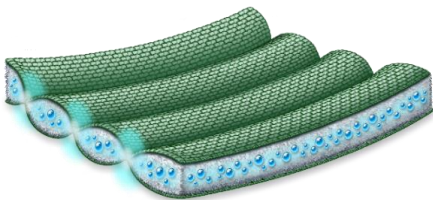
Innovative Water Molecular Adsorption Process  
(Eco-friendly & Permanent performance technology)



Proprietary structural example of iDown™

in comparison with

Regular down products



### Performance Features

Odour control

Down leak proof

Easy home wash

Volume increase after wash

Warm even when damp

Eco-friendly Technologies

High level of air permeability

Windproof & Water resistance

High rate of water-vapor transmission

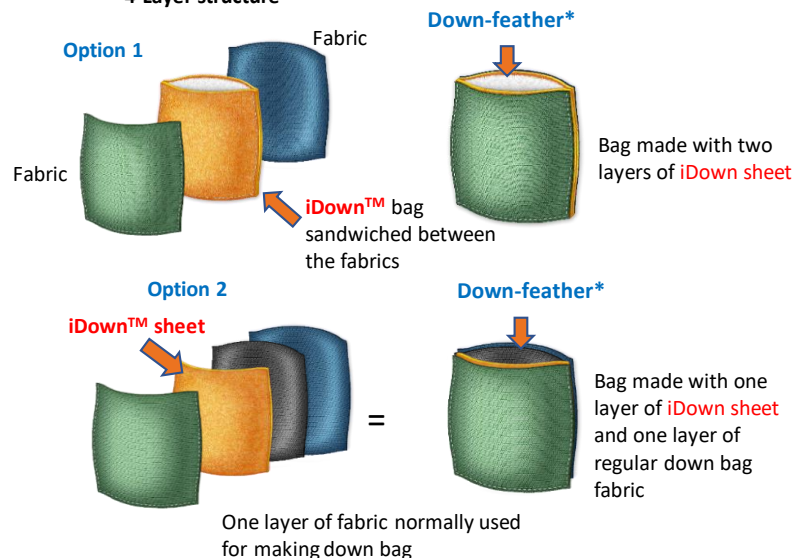
Improved longevity of finished products

Down cluster free and improvement in warmth



### iDown™ Technology Construction Method -1

4-Layer structure



\* Existing sources and quality of down feather can be used

### Construction Guidelines

iDown(TM) Technology consists of HEAT-MX(TM) products designed and engineered with HEAT-MX(TM) proprietary technologies. Air pressure from down/feather blowing machine must not create the reconstruction of the fiber structures of the iDown(TM) products. Product grades of iDown(TM) may differ based on the construction methods of the types of finished goods. Please consult with your sales representative for specific instructions of iDown(TM) product grades as well as DOs and DON'Ts of applying iDown(TM) into your products. Manufacturing methods as well as product grades of iDown proposed by HEAT-MX are to be strictly adhered to and incorporated in the cut-and-sew manufacturing processes. Licensing agreement may be required to use the iDown(TM) Technology. Manufacturing with the Technology without licensing agreement may result in lawsuits. Please contact your sales representative for more details. **Avoid high temperature or high pressure to attain optimum performance.**

### Care Instructions

Consumer products made with the iDown™ Technology are to be washed at home with commercially available home laundry detergents. Avoid dry cleaning. Ensure sufficient drying time in low-temp tumble dry setting for drying moisture inside the goods. Avoid keeping the goods in areas with high humidity.

### Technology Application Guidelines\*

#### Garment examples



Vest



Packable & Light weight

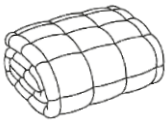


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#### Bedding products & Sleeping bags



Blankets & Pillows

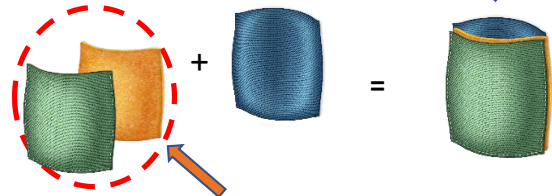


Sleeping bags

### iDown™ Technology Construction Method -2

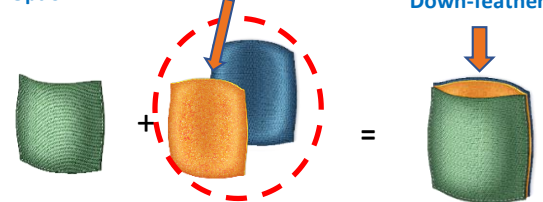
#### 3-Layer structure

##### Option 1



iDown™ sheet stitched to one of the fabrics

##### Option 2



\* Existing sources and quality of down feather can be used

### Breakthrough iDown™ Social / Environmental Benefits



\* Product Usage Guidelines are based on entire area applications of HEAT-MX™ products unless otherwise expressed explicitly, but may vary depending on specific applications. Contact your sales representative for the approval in case of exceptions from the application methods indicated in this document.

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