



# **FLAME RETARDANT (FR-MX)**

**Technology Descriptions & Environmental Benefits** 

## **SOCIAL & ENVIRONMENTAL BENEFITS**

### **CRUELTY-FREE**



HEAT-MX offers a wide range of technology options matching or even exceeding the performance of natural down feather material without using any animal-based-ingredient. This technical feature is incorporated in the award-winning nDown™, COMPACT MX, GLV-MX, LOFT MX, STRETCH MX and VEGAN DOWN MX product categories of HEAT-MX™.

# **HOME WASH / NO DRY CLEAN**



HEAT-MX™ technologies are engineered to allow all items containing HEAT-MX products to be washed at home without having to have them dry-cleaned, including the items filled with natural down feather. Such items as winter apparel, home textiles, sleeping bags, etc., with down-feather material as its thermal insulation material can benefit from this cutting-edge HEAT-MX™ Technology. The technical feature provides significant benefits such as improved hygiene by the means of more frequently washing them, cost reduction of maintenance, improved longevity, etc. While it is important to follow the wash instructions of the items consumers use, provided by the manufacturers and brands, this technology helps build a wide range of goods with significant environmental benefits as well. This technical feature uses no chemical treatment and is incorporated in all products HEAT-MX™ offers in the market.

## NMF™ TECHNOLOGY



HEAT-MX™ created a cutting-edge NMF™ technology to minimise microplastic contamination in our water system. Microplastic contaminations from synthetic fibers have become a large challenge in protecting our water systems not only in the perspective of the health and safety of people and animals, but also the entire eco system of the planet. This important technical feature is incorporated in selected products of HEAT-MX™ and has been recognized by the prestigious ISPO TOP OF INNOVATION AWARD. Please ask your HEAT-MX™ sales representative for more details.

#### SUSTAINABLE TECHNOLOGIES



HEAT-MX™ offers many important technical features in its products to benefit the environment, including HOME-WASH/NO-DRY-CLEANING, LARGEST EVERGY SAVING TECHNOLOGY IN THE GLOBAL TEXTILE INDUSTRY, CLEAN RECYCLING INITIATIVE™, CLEANLY-RECYCLED and CLEANLY-RECYCLABLE technologies. HEAT-MX's commitment for the environment has been recognized by ISPO TOP OF INNOVATION AWARDS.

Please ask your HEAT-MX™ sales representative for more details.

Note-1: Information presented in this document are product-code dependant and may change without notice. Some of the technical features may not be applicable on some specific HEAT-MX products. Please contact your HEAT-MX<sup>™</sup> sales representative for complete and updated information.











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## **PERFORMANCE FEATURES**

### FLAMME RETARDANT



HEAT-MX's FLAMME RETARDANT product provides a high level of relief against accidental exposure to excessive heat, flames or electric arc and is engineered to be used for clothing, glove, footwear, home textiles, etc., which require anti-flammability properties. The product satisfies various international standards for anti-flammability properties. Please ask your HEAT-MX™ sales representative for more details.

#### **HIGH-VOLUME**



HEAT-MX offers the breakthrough technology feature of VOLUME INCREASE for the items filled with natural down-feather or synthetic loose fibers for a given weight of material used. This cutting-edge technology helps manufacturers and brands to use lower quantity of filling material for same or higher level of warmth for the benefits of reduced cost, environmental contributions, etc. This technical feature uses no chemical treatment and the award-winning iDown™ and nDown™ product categories benefit from this technology. Please ask your HEAT-MX™ sales representative for more details.

### LRTD™ TECHNOLOGY



As the technology basis of all HEAT-MX™ products, this proprietary Long Range Thermal Dynamics (LRTD™) Technology offers most efficient ways of trapping and conserving body heat. Thanks to this innovative technology feature, goods made with HEAT-MX™ products offer superior and long-lasting warmth. Please ask your HEAT-MX™ sales representative for more details.

### **MOISTURE MANAGEMENT**



HEAT-MX<sup>™</sup> offers a moisture management performance feature which provides DRY comfort for people enjoying winter outdoors even in high level of activities. This technology feature is created with innovative use of fibers and construction methods. Please ask your HEAT-MX<sup>™</sup> sales representative for more details.

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#### WARM EVEN IN WET WEATHER



Combined with various breakthrough innovations of HEAT-MX™, e.g., DRI-CAVE™, LRTD™, MOISTURE MANAGEMENT, etc., items made with HEAT-MX™ products are warm even in wet weather and this includes the items filled with natural down-feather material. In cold weather, people may feel particularly uncomfortable when there is too much moisture close to body. Various technologies of HEAT-MX™ incorporated in all of the product categories the company offers are designed and engineered to provide ultimate comfort regardless of the activity level or type of filling material used, e.g., natural down-feather. Please ask your HEAT-MX™ sales representative for more details.

#### WATER REPELLENT

HEAT-MX provides the highest level of water repellency of its kind to help protect water penetration from outside towards body. This technical feature also contributes to the moisture management within its structure and help people feel comfortable even in wet environment. All HEAT-MX™ products benefit from this technology.

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## **TEMPERATURE RATINGS**

### TEMPERATURE RATING – COLD



Under HEAT-MX's proprietary temperature rating program, goods made with various types of HEAT-MX™ products can offer the COLD rating covering 0°C ~ -20°C or 32°F ~ -5°F. HEAT-MX™ works with brands and manufacturers to help build finished goods for this particular temperature rating with appropriate product weight as well as other necessary performance features. Temperature ratings for lower temperature ranges are also available. Please ask your HEAT-MX™ sales representative for more details.

#### TEMPERATURE RATING – VERY COLD



Under HEAT-MX's proprietary temperature rating program, goods made with various types of HEAT-MX™ products can offer the COLD rating covering -20°C ~ -40°C or -5°F ~ -40°F. HEAT-MX™ works with brands and manufacturers to help build finished goods for this particular temperature rating with appropriate product weight as well as other necessary performance features. Temperature ratings for lower temperature ranges are also available. Please ask your HEAT-MX™ sales representative for more details.

#### TEMPERATURE RATING – EXTREME COLD



Under HEAT-MX's proprietary temperature rating program, goods made with various types of HEAT-MX'<sup>™</sup> products can offer the COLD rating covering -40°C ~ -60°C or -40°F ~ -75°F. HEAT-MX'<sup>™</sup> works with brands and manufacturers to help build finished goods for this particular temperature rating with appropriate product weight as well as other necessary performance features. Temperature ratings for lower temperature ranges are also available. Please ask your HEAT-MX<sup>™</sup> sales representative for more details.

### TEMPERATURE RATING – EXPEDITION



Under HEAT-MX's proprietary temperature rating program, goods made with various types of HEAT-MX™ products can offer the COLD rating covering -60°C ~ -100°C or -75°F ~ -150°F. HEAT-MX™ works with brands and manufacturers to help build finished goods for this particular temperature rating with appropriate product weight as well as other necessary performance features. Temperature ratings for lower temperature ranges are also available. Please ask your HEAT-MX™ sales representative for more details.

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Note-2: Some of the technical features presented in this document may be applicable for a particular type of applications. For example, a specific temperature rating may be dependent on application types, application methods, etc. Information presented in this document may change without notice. Please contact your HEAT-MX™ sales representative or info@heat-mx.com for more details.

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