



ABOVE: Martin Meinecke, packaging developer at Thimm. **LEFT:** THIMM COOLandFREEZE enables the combined packaging of temperature-sensitive and temperature-insensitive products.

Keep cool and use corrugated board

The modular packaging 'THIMM COOLandFREEZE' for temperature-controlled shipping was awarded the iF Design Award 2018. The innovative shipping packaging enables the joint transport of frozen, chilled and non-refrigerated products within one package, with a shippable fridge-freezer combination made of corrugated board. This makes it ideal for temperature-controlled packaging for food and medical devices.

Multiple temperature zones within one shipping package make the 'THIMM COOLandFREEZE' a sustainable innovation in e-commerce. The different zones are ideal for shipping temperature-sensitive foods or medical products. A combination with temperature-insensitive products is possible.

"The construction consists of a two-part outer packaging and modular inlays for different temperature zones," explains Martin Meinecke, packaging developer at Thimm.

"The outer packaging protects from moisture such as condensation with a layer of polyethylene. By means of novel folding techniques, the box can be rapidly constructed and stabilised. The temperature zones are generated by inlays. Thus, they can be combined for the transport of, for example, fruit or vegetables with fresh products such as cheese or sausage."

The inlay for uncooled products consists of corrugated cardboard and is the basis for the other temperature zones. A blanket of natural fibres enclosed in polyethylene foil acts as an insulator.

Water-based cooling batteries provide a target temperature below three degrees Celsius and create the transport area for refrigerated products. For frozen products, dry ice is used to reach a temperature of -18 degrees Celsius. By means of these cooling elements, the level of product cooling is controlled and maintained for up to 48 hours.

Delivery is either prefabricated or as a flat pack. This corrugated cardboard packaging is a more sustainable alternative to polystyrene or plastic shipping solutions. Or for keeping the *braai* meat and beer (and of course the salad) cold for the holiday journey. ■