

## Safety Data Sheet

1.	Substance/preparation	Polypropylene copolymer
2.	Composition / Indications to components	Chemical characteristics: copolymer of propylene CAS-number: not necessary
3.	Possible dangers	Unknown
4.	First-aid measures	General comment: medical aid is not necessary First-aid measures: none Routes of exposure: none Symptoms / effects: none
5.	Fire-fighting measures	Suitable fire-fighting appliance: water fog, foam, fire fighting powder, carbon dioxide Hazard warning notice: not applicable
6.	Measures in case of unintended release	Person-related measures: none Environmental protection measures: not applicable Cleaning equipment: not applicable Unsuitable cleaning products: not applicable
7.	Handling and storage	Handling: no special regulations must be observed Storage: unlimited good storage property
8.	Limitation of exposition	Special design of techn. processing facilities: not required Tolerance levels: none Exposure measurement procedures: none Respiratory protection: not required Eye protection: not required Body protection: not required
9.	Physical and chemical characteristics	<u>Phenotype</u> Phenotype / form: semi-finished product, solid state Colour: grey Smell: not applicable <u>Change of state</u> Crystalline melting range: 160-164 °C Flash point: not applicable <u>Other remarks</u> Density: 0.91 g/cm <sup>3</sup>
10.	Stability and reactivity	Thermal decomposition: above appr. 300 °C Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise. Use of stabilisers: none Exothermic reactions: none Notices regarding state of aggregation: none Conditions to be avoided: none Substances/media to be avoided: none
11.	Toxic information	During several years of usage no effects being harmful for the health were observed.

12.	Ecological information	No biodegradation, no solubility in water, no effects being harmful to the environment must be expected. Mobility: not applicable Accumulation: not applicable Eco-toxicity: not applicable
13.	Waste-disposal information	Can be recycled or can be disposed of together with household rubbish (acc. to local regulations). Waste key for the unused product: EAK-Code 120 105 Waste name: waste of Polyolefine.
14.	Transport information	No dangerous product in respect to / according to transport regulations Notice/symbol transport containers: none Special marking for containers: none
15.	Regulations	Marking according to GefStoffV/EG: no obligation for marking Water danger class: class 0 (self classification) Domestic requirements to be observed: none
16.	Further information	The information is based on our current knowledge. They are meant to describe our products in respect to safety requirements. They do not represent any guarantee of the described product in the sense of the legal guarantee regulations.

## Safety Data Sheet

Moulding compound extruded	PP-B,EN,10-35-003
Extruded to moulding compound standard	DIN EN ISO 1873, Teil 1
Moulding compound pressed	PP-B,QN,10-35-003
Pressed to moulding compound standard	DIN EN ISO 1873, Teil 1
Density, g/cm <sup>3</sup> , ISO 1183	0.91
Yield stress, MPa, DIN EN ISO 527	26
Elongation at yield, %, DIN EN ISO 527	7
Tensile modulus of elasticity, MPa, DIN EN ISO	1200
Impact strength, kJ/m <sup>2</sup> , DIN EN ISO 179	Without break
Ball indentation hardness, MPa, DIN EN ISO 2039-1	50
Mean coefficient of linear thermal expansion, K <sup>-1</sup> , DIN 53752	1,6× 10 <sup>-4</sup>
Fire behaviour DIN 4102	B2 normal flammability
Dielectric strength, kV/mm, DIN IEC 60243.1	58
Surface resistivity, Ohm, DIN IEC 60093	1014
Temperature range, °C	-20 to +80
Physiological safety in accordance with BfR	Yes

All specifications are deemed to be approximate values and may vary depending on the processing methods used and the specimen or test piece. In general, data specified applies to average values measured on extruded sheets with a thickness of 4mm. Deviations from the values specified are possible if the sheets in this thickness are not available. Information presented herein cannot necessarily be applied to finished items or products. Suitability of materials for a specific field of application must be assessed by the party responsible for processing or the end-user. All technical specifications presented herein are designed merely to provide assistance in terms of project planning. Under no circumstances do they constitute a guaranteed property or quality of the items

## TOP/ SHELF/ BOTTOM



Vacuum formed in Black or White High Impact Polystyrene suitable for use with food, as

covered by the directive relating to plastic materials and articles intended to come into contact with foodstuffs. Hips has a self-ignition temperature of >450°C. Flammability rating of (Method) UL94, (Value) HB, (Units) @1.6mm. Tops, shelves, bottoms and baseshelf are designed incorporating a “clip” for attaching to the body panel enabling the complete unit to be moved without coming apart. Tops are available with one, two or no holes. Bottom mouldings have “foot well” design and “top hat” recesses to take poles supporting header panels, except for Original Promotor which has handed holes in the interchangeable tops and bottoms.

## BODY PANEL



Extruded Black or White Polypropylene, machined unique “hinges” for folding which become

more flexible and robust with use. Panel size may vary. Ignition temperature >300°C, burns but is not classified as flammable. All body panels are flat and smooth on both sides with no clips or fixing pieces etc. Simple and easy to put through a laminating machine, quick and easy to fix graphics.

## POLES



Produced in 20g ERW steel tube 25mm diameter and finished in epoxy polyester powder.

Inter-connecting poles are swaged at one end for simplicity of assembly.

## HEADERS



Made with Black or White foam board with either square or round corners, complete with self-adhesive plastic

hollow fixings which fit over the swaged supporting poles; with slots for locating into slotted poles; with plastic poles, clips and screwed through fixings which locate into the top of supporting poles.

## ROUND TRAY



Moulded in white plastic with a simple screw clamp fixing device enabling the tray to be secured at any

height on all Promotor pole sets.

## BAGS



Made from black nylon with waterproof P.V.C. backing and pockets to take accessories, headers, pole sets, umbrellas, etc. Handles are in black nylon weave and zips where applicable are made from nylon continuous

chain. Carry bags have instructions printed inside (except Demo, Budget, Merit, Compact, Solus and Standalone). Design of bag depends on which “Promotor” product is required.

## RECYCLING



All products are manufactured from materials which when separated are suitable for recycling. In-house recycling processes in place

for minimal manufacturing waste in our environmentally friendly factory.

## GRAPHICS INFORMATION

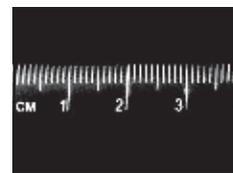


The graphics used for the production of this brochure have been printed by inkjet onto self-adhesive vinyl. As

they were only to be used in a static situation, i.e. not set up and dismantled on a regular basis, it was not necessary to “strip out” the graphic material on the body panel “hinge” lines. We would recommend when using the Promotors on an ongoing assembly, dismantling and transportation basis, that the graphic material is stripped out by 1mm to 2mm along the hinge line, before the graphic is mounted.

A popular method for changeable graphic material is to print onto a vinyl style film and then apply the graphics to the Body Panel using either Velcro or mag tape. Some clients wrap the graphics all the way round the unit depending on how thick the chosen material is.

## PERFORMANCE



All products can vary in dimensions from batch to batch including colour and are not supplied or

guaranteed for a specific use. Different graphic applications can have an adverse effect on the materials and airborne contamination can possibly be detrimental to materials performance. Conditions of sale on request. Terms and conditions may vary. Specifications, dimensions and materials can be changed without prior notice. Full Terms and Conditions available on request.

## Empera Iceberg

High impact polystyrene with increased environmental stress crack resistance

### General properties

Empera Iceberg is a high impact polystyrene grade especially developed for extrusion and thermo-forming purposes.

### Physical properties (typical values)

Property	Value	Unit	Standard	Method
Volume melt-flow rate MVR	4.2	cm <sup>3</sup> /10min	ISO 1133	200 °C/5 kg
Vicat softening temperature VST	89	°C	ISO 306	B50/ÖI
Charpy notched impact strength at 23°C	10	kJ/m <sup>2</sup>	ISO 179	1eA
Yield stress	20	MPa	ISO 527-2	50 mm/min
Tensile strain at yield	2.3	%	ISO 527-2	50 mm/min
Tensile stress at break	24	MPa	ISO 527-2	50 mm/min
Nominal strain at break	70	%	ISO 527-2	50 mm/min
Tensile modulus	1600	MPa	ISO 527-2	1 mm/min
Flexural strength	35	MPa	ISO 178	2 mm/min
Ball indentation hardness H	80	N/mm <sup>2</sup>	ISO 2039-1	358 N/30 s
Density	1040	kg/m <sup>3</sup>	ISO 1183	
Water absorption (after 24 h)	< 0.1	%	ISO 62	
Temp. of deflection under load HDT/A	80	°C	ISO 75-2	1.8 MPa
Thermal conductivity	0.16	W/m·K	DIN 52 612	
Mean therm. coefficient of linear expansion	0.8·10 <sup>-4</sup>	K <sup>-1</sup>	DIN 53 752	(23 - 80)°C
Processing shrinkage	0.5-0.7	%	ISO 294-4	
Flammability class at 1.4mm thickness and more	94HB	Class	UL-Standard 94	Horizontal burning test

### Processing

Empera Iceberg can be processed by all conventional techniques using standard conditions for impact polystyrene although it is developed primary for sheet and foil extrusion. Cups and containers made from Empera Iceberg show a very uniform wall thickness distribution.

### Examples of application

Packaging of fatty food like margarine, refrigerator liners.

### Supply form

Empera Iceberg is supplied as cylindrical pellets, packed in 25 kg bags or bulk.

## **Empera and the environment**

Empera, as supplied, can be recycled, incinerated or disposed of in landfill without detriment to the environment.

With respect to recycling, it is not recommended to recycle polystyrene waste for food contact application. However, clean waste can be recycled for many less demanding applications.

Alternatively, with properly controlled and efficient incineration, preferably linked to heat or other energy recovery systems, its high calorific value will assist the combustion of municipal solid waste.

Empera grades, as dispatched from our plants, comply with the limits for designated heavy metals (Lead, Cadmium, Mercury and Chromium) set in the European Directive 94/62/EC of 20/12/94 (Packaging and Packaging Waste) or the USA – CONEG Regulation (less than 100 ppm of designated metals). Confirmation of compliance will be provided on request.

In landfill sites, polystyrene does not degrade to produce voids, and does not emit dangerous gases or contribute to groundwater pollution.

## **Health and safety**

Material Safety Data Sheet should be consulted before handling and using Empera.

## **Food contact and toy application**

All Empera grades, as dispatched from our plants, comply with the requirements in all European countries and USA.