

General Processing Information

Please carefully read the following instructions, which will provide you with helpful information when using Sarlink.

Safety

Sarlink does not present a danger to human health or the aquatic environment in the form in which it is placed on the market. . During processing contact with the polymer and inhalation of fumes should be avoided. More and detailed information is provided in the relevant Material Safety Data Sheets. These are available at your nearest DSM representative and can be downloaded from www.sarlink.com

Storage instructions

The storage area should be dry and properly ventilated, and meet the common standards of cleanliness. All direct contact with foreign materials should be avoided. It is recommended to keep the material in its original packaging until the moment it is to be used.

For storage over a long period of time the recommended maximum temperature is 30°C to prevent ageing and/or sticking of the granulate.

Humid conditions should be avoided, since moisture will influence the processing behaviour of the material. Relative humidity should preferably be kept below 65%. Do not store Sarlink outside. Too high moisture uptake could hinder the drying of the granulate and cause difficulties in the processing behaviour and/or in the properties and surface extrudate.

Never stack cardboard boxes more than two high to prevent the risk of them falling over. Big bags, octabins and pallets with small bags should not be stacked for safety reasons.

When stored under proper conditions, Sarlink has a shelf life of several years.

Moisture absorption and drying

Sarlink granules pick up moisture to a small degree when exposed to air and in other direct contact with moisture. To avoid processing problems and potential adverse effects on the quality of the mouldings, moisture pick up must be limited as much as possible. During storage bags should be kept closed and undamaged, preferably indoors.

To avoid moisture absorption of the granules as much as possible it is recommended to bring Sarlink granules to ambient temperatures in the processing room, before opening the packaging. Open the packaging just before filling. If the total contents are not used, close the Sarlink bags securely.

Drying is recommended for extrusion and extrusion blow molding processes. This is best accomplished in a desiccant dryer. Recommended drying time is 4 hours at 70°C for de-moisturizing of material stored in an unopened sealed bag.

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Processing techniques

Sarlink materials are polypropylene based elastomers that can be easily processed on conventional thermoplastic equipment for extrusion, blow moulding, injection moulding or compression moulding. The products have a wide processing window in most applications. Melt temperatures of 185°C to 220°C can be used. Do not exceed 260°C. Drying is recommended prior to use; see previous paragraph.

Typical conditions for injection moulding and extrusion are given in the table below. For more detailed information on the various processing techniques, please refer to the corresponding Processing Guide(s).

INJECTION MOULDING CONDITIONS			EXTRUSION CONDITIONS		
Melt temperature		185-220°C	Melt Temperature		195-215°C
Barrel temperatures	Rear Middle Front Nozzle	180-215°C 180-215°C 180-215°C 185-220°C	Barrel Temperature	Rear Transition Metering Front Die	180-200°C 180-205°C 185-210°C 185-210°C 195-215°C
Mould Temperature		10-55°C			
Screw Speed		100-200 RPM	Roll Temperature		20-50°C
Back Pressure		0,1-1 Mpa	Screen Pack		20 to 60 mesh
Screw	General Purpose		Screw	General Purpose 3 : 1 compression ratio	

Sarlink materials have excellent melt stability. Barrels should be emptied for idle periods of 30 minutes or longer. Before and after use, thorough purging with polyethylene or polypropylene is recommended.

Assembling

Thermal bonding techniques that are used for polyolefinic materials are also applicable for Sarlink to form high strength bonds.

Adhesive bonding of polymeric materials is affected by the polarity and compatibility of the material. Most adhesives tend to bond better to highly polar substances than to those with low polarity like the polyolefinic Sarlink materials.

Good adhesion can be obtained with Sarlink by the use of solvent based, chemically activated systems at elevated temperatures. Based on the specific Sarlink grade and application, a suitable adhesive system can be recommended by our application experts.

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Colouring

Standard Sarlink grades are available both in natural and black. Specific shades may be achieved by using polyolefin-based colour master batches.

In injection moulding, the application of sufficient back pressure is necessary to disperse the color.

Recyclability

Sarlink scrap generated during the processing of the granules or rejected products can be reground and reused. Materials can be reprocessed through several heat cycles without loss of physical properties.

Specific grade information on recommended regrind to virgin blend ratios and the maximum number of reprocessing cycles is available upon request.