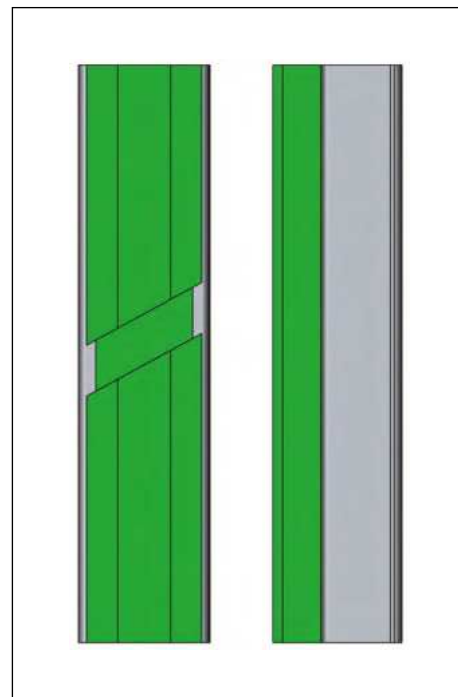
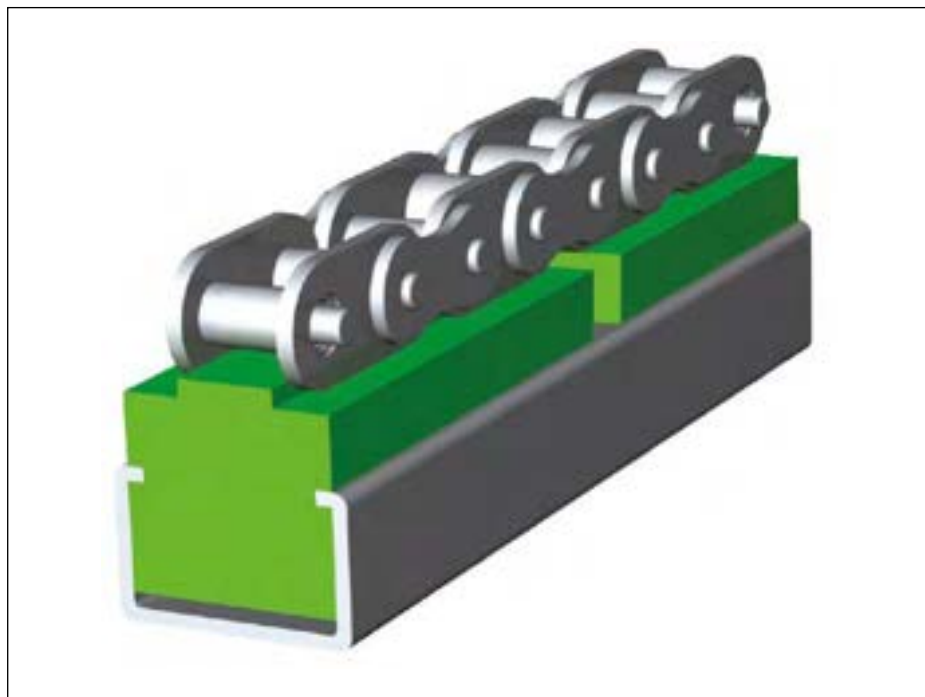


Spindle for leveling feet

TYPE B	TYPE J	TYPE P
 Spindle available in Stainless Steel or Zinc plated steel. Manufactured in on piece. Available in M8, M10, M12, M14, M16, M20, M24 for base diameter 40, 50, 60SS, 63, 80, 80SS, 100, 100SS, 110, 125. Length according to table.	 Polyamide Spindle available in M16 for bases diameter 63, 100, 110, 125. Highly recommended in applications with low weight requirements.	 Spindle available in Stainless Steel or Zinc plated steel with hexagonal base. Manufactured in on piece. Available in M16 o M20 for articulated feet diameter 130. Length according to table. Ideal for heavy load utilization and light inclination requirement.
TYPE Q	TYPE R	TYPE S
 Spindle available in Stainless Steel or Zinc plated steel. Manufactured in on piece. Available in M24 o M30 for articulated feet diameter 130. Length according to table. Ideal for heavy load utilization and light inclination requirement.	 Spindle available in Stainless Steel or Zinc plated steel with hexagonal base. Manufactured in on piece. Available in M16 o M20 for fixed feet diameter 130. Length according to table Ideal for heavy loads.	 Spindle available in stainless steel or Zinc plated steel. Single piece manufactured proces. Available in M24 o M30 for fixed Feet diameter 130. Lenght according table. Ideal for heavy loads.

UHMW-PE DESLIDUR



Why using DESLIDUR?

- DESLIDUR profiles (wearstrips) increase the duration and conservation of roller chains, plate chains, belts.
- DESLIDUR profiles reduce the noise in the factories, improving the working environment.
- DESLIDUR profiles reduce power requirements.
- DESLIDUR profiles are self lubricated, therefore, they decrease the necessities of maintenance.
- The material with which DESLIDUR profiles are fabricated have been approved by the FDA/USDA and may be used in direct contact with food products.
- The operating temperature, from -40° to 80° C, without humidity absorption, allows DESLIDUR profiles to adapt to a wide range of uses.
- DESLIDUR material is re-cyclable.

Principal properties of deslidur profiles

- High abrasion resistance
- Low co-efficient of friction
- No absorption of humidity
- High resistance to impact and flexibility
- Excellent chemical resistance
- Approved for food applications
- Homogeneity of materials

Uses and assembly

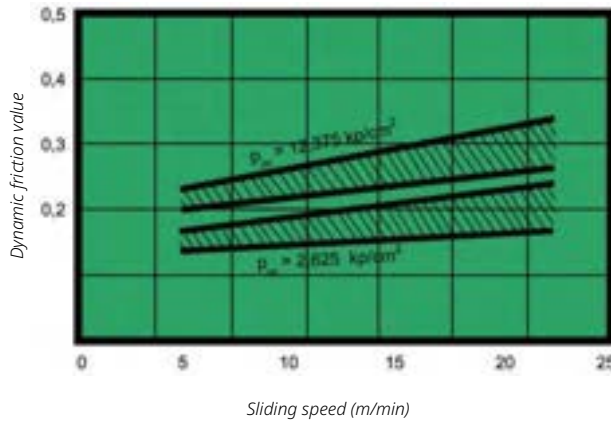
DESLIDUR profiles perform exceptionally well at a constant temperature between -40°C to 80°C, and for short periods of time up to a temperature of 120°C. When the temperature is higher than the one recommended, please consult our commercial-technical department.

When assembling it must be foreseen the coefficient of linear dilation, 2 mm/meter for every 10 degrees of variation in the range of 20°C to 100°C.

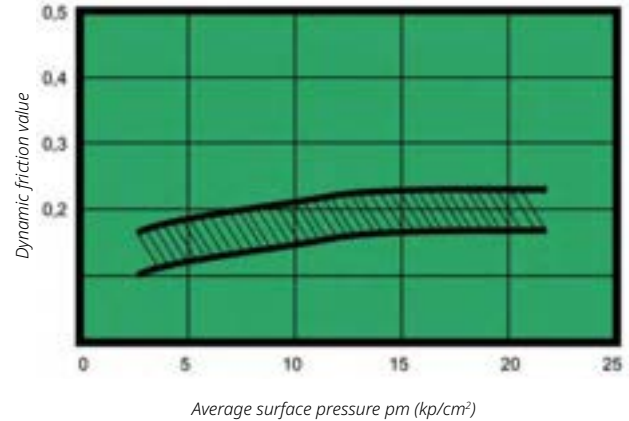
To avoid consequences of this phenomenon you may choose, for example do cut the profile at an angle of 45° at every joining point. This system is principally used with profiles supported by metal guides, according to the drawing below.

Properties of DESLIDUR plastic materials

Relationship between the dynamic friction value of Hostalen GUR and sliding speed (at average surface pressures of $p_m = 2,625$ y $12,375$ kp/cm²).



Relationship between the dynamic friction value of Hostalen GUR and average surface pressure (at a constant sliding speed of $v=10$ m/min).



Deslidur's mechanical products

The T.M. AVE plastics factory uses leading edge technology to produce and process semi-finished and fully finished items from a low pressure, ultrahigh molecular weight polyethylene called DESLIDUR, by means of pressing and sintering or extrusion procedures. These materials, which are highly resistant to wear and tear, make it possible to offer solutions to many technical problems where the mechanical components and construction elements are subjected to extreme stress.

Low pressure ultrahigh molecular weight polyethylene (UHMW PE -DESLIDUR)

As its raw material, T.M. AVE uses ®HOSTALEN GUR, manufactured according to Professor Ziegler's method. ®HOSTALEN GUR is a low pressure, ultrahigh molecular weight polyethylene, known as DESLIDUR, which exhibits high polymerization properties. Its molecular weight goes from 4,5 to 8 million when measured by the light dispersion method and over 1 million when determined viscometrically. This extremely high molecular weight ensures that the polyethylene has enhanced wear-resistant properties, in particular as regards its impact strength, fracture strength and bending strength among other key technical features. The values of such properties remain high even under the coldest temperature conditions. In addition, ultrahigh molecular weight DESLIDUR is self-lubricating.

Sliding properties and friction coefficient

DESLIDUR has excellent sliding properties. Comparative studies with other plastics have shown that it has self-lubricating properties when used in dry friction situations when sliding against metals such as steel, brass or copper. Its emergency sliding properties are also very good. The DESLIDUR bearing sleeves holding the shafts are unaffected by dirt (dust, sand and similar particles) or lateral flexing. Such properties prevent the so-called "gripping" of the shafts. However an essential condition for these bearings to work to their full potential is that the heat caused by the friction be dissipated to the outside.

Water absorption

DESLIDUR is hydrofugous and does not swell. This means that, unlike humidity-absorbing plastics such as the polyamides, its outstanding features are independent of the degree of humidity in the environment of the finished part.

The absorption of water which can sometimes be seen, particularly when there is a change in temperature, is due only to the slight condensation of humidity on the surface.

Physiological behaviour

The different types of DESLIDUR are odourless and tasteless. There is no reason why they should not come into contact with food products.

Deslidur application examples

Mechanical maintenance

The canning, packing and bottling industry and its customers - manufacturers of preserves, brewers, dairies and so on - use items made from DESLIDUR for their sliding properties, resistance to abrasion and silent working. Besides, they need neither painting nor lubricating. In certain circumstances it is useful to use it for guiding strips and sliding strips or bands for conveyor chains, conveyor belt supports, chain wheels, transport rollers, tensors, direction changers, flange plates, transport chain stars and curves, inclined planes, helical screw conveyors, input parts, etc.

The meat and fish industries the food products industry

DESLIDUR's advantages are easily apparent in this sector. It lasts several times longer than wood, does not rot, is hygienically faultless, is rated as physiologically neutral by the Federal Health Bureau, does not blunt cutting edges and can be easily cleaned with hot water. For all these reasons, plating for working table tops and coatings for other items used in processing meat, fish and vegetables are made of DESLIDUR.

Its special properties, particularly the fact that it does not stick and is so easy to clean, mean that it is also used in the pasta, confectionery and sugar industries for items such as scrapers, moulds, bearing sleeves, worms, sliding strips, table veneers, hopper coatings, inclined planes, hoppers feeders and storage containers in general.

Mining. Mechanical maintenance and bulk storage

Hoppers, inclined planes, guides, feeder hoppers and other devices as well as mechanical maintenance equipment, interior transport and bulk storage containers can all profitably be coated with DESLIDUR. Its high abrasion resistance and its optimum sliding properties allow the use of slight inclination angles. It will prevent bulk materials from sticking whether they are dry, wet, pasty or sticky and will prevent input holdups due to bottlenecks, freezing, compacting or unscrambling.

Open lorries, self-unloading wagons and other means of transport are also best coated with DESLIDUR.



The textile industry

Pickers made of DESLIDUR are able to withstand up to 100 million impacts without breaking. Other parts for which the properties of DESLIDUR are particularly suited include leather ejection collars, cogwheels, shock absorbers and picker protection belts.

The chemical industry

DESLIDUR's exceptional resistance to chemicals and stress-corrosion cracking make it the ideal material for a wide range of applications. It is not attacked by aqueous solutions of acids, alkalis, salts or the majority of solvents and is only vulnerable to aromatic and halogenized hydrocarbons at very high temperatures. At most, oil, grease and wax may produce a very slight swelling.

Machinery and appliance construction

DESLIDUR materials offer constructor new possibilities in a whole array of different areas. These special features include high wear resistance, good abrasion performance, excellent sliding properties, maximum impact and bending strength and resistance to corrosion by chemical products and the weather. In addition to all this, these materials are fracture and cold resistant, vibration absorbent, self-lubricating, free from swelling, waterproof, humidity repellent, harmless, odourless and tasteless.

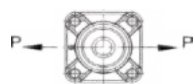
Application examples

Sliding. Guides strips and belts. Guide Blocks and inserts. Rollers, cable sheaves, cable return pulleys. Gears. Bearing sleeves and bushes. Underwater bearings. Conveyor chain stars. Sprocket replacements, coupling discs, roller guides, drive sprockets, drawing machine chute coatings, etc. in the engineering industry. Carrier plates, door rollers, edge protectors, etc. in ship-building and the aeronautical industry. Sliding guides, feet bosses, chain guide strips, etc., for escalators and lifts. Cable pulleys and cable reversing disc for cable cars. Sliding supports, strips and blocks, impact plates, carrier blocks for bale conveyors, etc. in agricultural machinery construction. Door locks and guides in railway carriage construction. In certain applications it is important to bear in mind the limitations due to cold flow (deriving from the material's viscous-elastic behaviour), thermal expansion and heat resistance.

CHEMICAL SUBSTANCE Temperatures up to 65°C	Polyamide	Steel	AISI SS304	AISI SS430	ACETAL	UHMW-PE "Deslidur"
Acetone	B	NS	B	B	B	B
Acetic acid (max. 5%)	NS	NS	B	NS	NS	B
Citric acid	AV	NS	B	AV	AV	B
Formic acid	NS	B	B	B	B	B
Phosphoric acid (max. 10%)	NS	NS	B	NS	NS	B
Hydrochloric acid (max.2%)	NS	NS	NS	NS	NS	AV
Lactic acid	B	NS	B	NS	B	B
Nitric acid	NS	NS	B	AV	NS	AV
Sulphide acid	NS	NS	NS	NS	NS	NS
Oil (vegetable or mineral)	B	B	B	B	B	B
Soap and water	B	AV	B	B	B	B
Fresh water	B	NS	B	B	B	B
Sea Water	NS	AV	B	AV	B	B
Alcohol	B	B	B	B	B	B
Ammonia	B	AV	B	B	NS	B
Soft drinks	B	B	B	B	B	B
Spirits	B	B	B	B	B	B
Benzene	B	B	B	B	B	AV
Benzol	B	B	B	B	B	B
Beer	B	B	B	B	B	B
Chocolat	AV	B	B	B	AV	AV
Sodium hydrochloride	B	NS	AV	NS	B	B
Petrol	B	B	B	B	B	AV
Sodium hydroxide (max. 25%)	B	NS	B	B	NS	B
Sodium hypochlorite	B	NS	NS	NS	NS	B
Fruit juices	B	NS	B	AV	B	B
Vegetable juices	B	AV	B	B	B	B
Milk	B	B	B	B	B	B
Mustard	AV	B	B	B	AV	AV
Paraffin	B	B	B	B	B	B
Hydrogen peroxide	NS	NS	B	AV	NS	AV
Carbon tetrachloride	B	AV	AV	AV	B	AV
Toluene	NS	NS	NS	NS	B	AV
Turpentine	NS	B	B	B	NS	AV
Vinegar	B	NS	AV	NS	B	B
Wine	B	B	B	B	B	B
Whisky	B	B	B	B	B	B
Iodine	NS	AV	AV	AV	AV	AV
Xilol	NS	NS	NS	NS	NS	NS

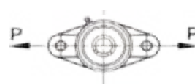
B Good | AV Average | NS Unsatisfactory | This information may be considered as a basis for recommendation, but not as a guarantee.
Materials and products should be tested under exact intended service conditions to determine their suitability for a particular purpose

Type UCF					
Mode of Load	Breaking Point Test				
	Ø20	Ø25	Ø30	Ø35	Ø40



15950 13000 18000 18500 19100

Type UCL-UFL					
Mode of Load	Breaking Point Test				
	Ø20	Ø25	Ø30	Ø35	Ø40



11750 11375 16450 16900 17350

	10250	12150	17700	18500	19250
--	-------	-------	-------	-------	-------

	11000	13850	13350	13950	14050
--	-------	-------	-------	-------	-------

	3650	3350	3350	3520	3790
--	------	------	------	------	------

	8500	11100	14200	14900	15150
--	------	-------	-------	-------	-------

Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

Type UCP					
Mode of Load	Breaking Point Test				
	Ø20	Ø25	Ø30	Ø35	Ø40



8800 11375 16450 16900 17350

Type UCPA					
Mode of Load	Breaking Point Test				
	Ø20	Ø25	Ø30	Ø35	Ø40



8210 8540 10370 12150 12230

	7700	13850	13350	13950	14050
--	------	-------	-------	-------	-------

	6900	7010	6580	8080	9100
--	------	------	------	------	------

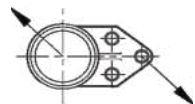
	500	11100	14200	14900	15150
--	-----	-------	-------	-------	-------

	2980	2850	4950	8160	9100
--	------	------	------	------	------

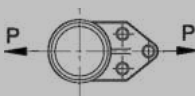
Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

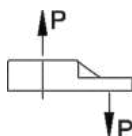
Type SQL				
Mode of Load	Breaking Point Test			
	Ø20	Ø25	Ø30	Ø35



7200 9100 12200 12900



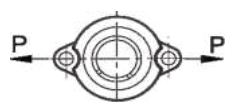
9200 11100 11800 11900



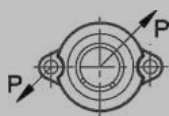
2600 2800 2900 3100

Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

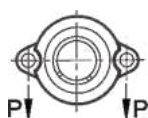
Type ULF-M				
Mode of Load	Breaking Point Test			
	Ø20	Ø25	Ø30	Ø35



8400 8800 11500 1800



8500 9200 10900 11600



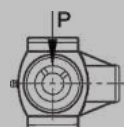
6300 8600 10300 10500

Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

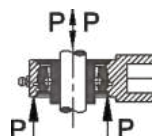
Type UCHP-UCH					
Mode of Load	Breaking Point Test				
	Ø20	Ø25	Ø30	Ø35	Ø40



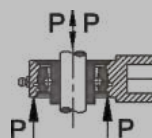
14800 15500 15800 16500 17300



3930 4530 5100 6500 7800



8500 10350 10900 11300 12150



40770 45300 46100 44100 42800

Informations Values in Newtons | Under request
Bearing with excentric ring | Stainless steel

Support bearings application examples

OUR THERMOPLASTIC BEARING HOUSINGS

Are made of a high special PP grade and are completely compatible with standard cast iron housings.

Our housings do not need maintenance. They have an excellent mechanical resistance, hardness, and dimensional stability as they can never become rust.

OUR THERMOPLASTIC HOUSINGS

Include a solid insert which is increasing its resistance and standardize them with the stainless steel inserts, reaching a higher resistance.

Units are available with optional covers, seals and solid base to add more protection and avoiding contamination obstructing.

You can be sure that our housings resist the hardest applications. These housings are designed to work under extremely severe humidity conditions, and temperatures from 35°C to +102°C. They've a high coefficient of breaking resistance (ASTM 0630) and unsurpassable 17,300 PSI.

HIGHER PRESSURE CAPACITY THAN ANY OTHER BEARING HOUSINGS!

Our resistance coefficient to pressure is a 25% higher than any other bearings. This capacity to carry a bigger load comes up with a longer life expectation for the bearing. As a result, you benefit from a high capacity and with the benefit of a longer life for the bearing.

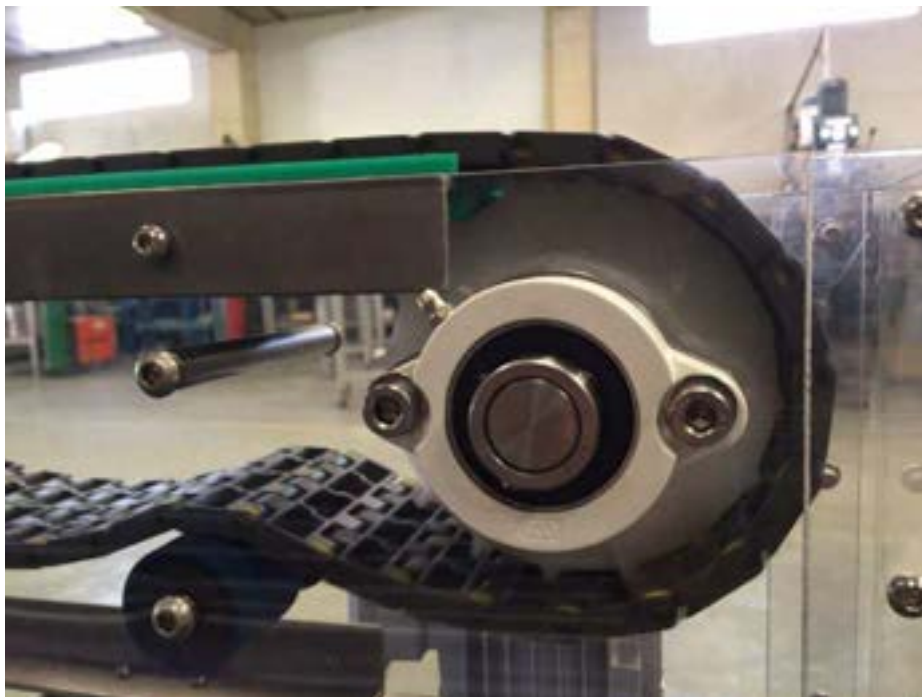
SOLID BOTTOM

Its solid base avoids pollution to enter into the bottom of the housing.

There's no way for dirtiness, rust or germs to accumulate, as its surface is plain.

FROM 20 mm to 40 mm

All our housings are available indifferent diameters from 20 mm to 40 mm.



THE SOLID INSERTS AT OUR THERMOPLASTIC HOUSINGS ARE UNEQUALLED!

Our insert in one piece is made of stainless steel has reinforced the tension points and is designed for an optimal resistance to corrosion.

We are giving solutions to food and beverage applications, and also to all those applications submerged with composed housings, assembled and linked, whose result is an improvement at a competitive level.

This is the reason why our housings are designed to cover all your important engineering requirements for

- Frequent immersions
- Rust resistance
- Food and contaminant liquids resistance
- Exposure to rough chemical components
- Exposure to a high level of humidity
- Built-in greaser

And with our housings you have the possibility to choose the most adequate combination to your working needs.

SOLID BASE!

Look and check the quality difference. The solid interior of our thermoplastic pieces avoids breaking when cleaning by steam or pressure washings.

SOLID STAINLESS STEEL BUSHINGS WITHOUT WASHERS!

Just compare our solid and massive stainless steel bushing mounted on thermoplastic housings that reinforce the tension points and are designed to improve the units with visible gaskets offering an small protection against corrosion.

Abbreviation	Meaning	Abbreviation	Meaning
Ref	Reference	P	Pitch
DE	Outside diameter	Ri	Back bend radius
DF	Pilot Bore	RM	Min. curve radius
DP	Primitive diameter	Rd	Running direction
in	Inches	S	Steel
K	Plate width	SS	Stainless Steel.
Kg/m	Kilograms per meter	STD	Standard
Kg	Kilograms per unit	DS	DRYSLIDE
mm	Millimeter	WR	Wear Resistance
MTO	Made to order	Z	Number of teeth