



**DATA SHEET**

**TAROMID B 280 S**

Polyamide 6 medium viscosity, general purpose grade, fast cycles.

Available: natural colour.

	<b>DRYING - conditions</b>	<b>Melt temperature:</b>	220 - 240°C
<b>Pre-heater:</b>	80 - 100°C / 3 h	<b>Mould temperature:</b>	70 - 80°C
<b>Dryer:</b>	80 - 90°C / 1 h	<b>Rate of injection:</b>	MEDIUM

PROPERTY	METHOD	unit	VALUE	condition
<b>ELECTRICAL</b>				
Volume Resistivity	IEC 60093	Ohm cm	<b>5x10exp(15)</b>	
Dielectric Constant	IEC 60250	-	<b>3,60</b>	
Tracking Resistance ( CTI - Method A )	IEC 60112	Volt	<b>&gt;600</b>	
Tracking Resistance ( CTI - Method B )	IEC 60112	Volt	<b>600M</b>	
Electric Strength	IEC 60243-1	kV/mm	<b>18</b>	2 mm
<b>PHYSICAL</b>				
Melt Flow Rate (MFR)	ISO 1133	g/10 min	<b>12</b>	250°C - 1,2 kg
Granule Humidity	TARO 002	%	<b>&lt;0,15</b>	
Density ( 23 °C )	ISO 1183	g/cm <sup>3</sup>	<b>1,13-1,14</b>	
Water Absorption ( 24h / 23°C )	ISO 62	%	<b>2</b>	
Water Absorption at Saturation	ISO 62	%	<b>9</b>	
Mould Shrinkage (Parallel)	Internal method	%	<b>1,1-1,6</b>	
Mould Shrinkage (Normal)	Internal method	%	<b>1,1-1,6</b>	
Melting temperature (DSC)	ISO 11357	°C	<b>220</b>	
<b>MECHANICAL</b>				
IZOD Notched Impact	ASTM D256	J/m	<b>50</b>	+23°C
Tensile Modulus	ISO 527-1,2	Mpa	<b>2900</b>	Speed 1 mm/min
Flexural Modulus	ISO 178	Mpa	<b>2800</b>	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	<b>100</b>	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	Mpa	<b>64</b>	Speed 50 mm/min
Tensile Yield Strength	ISO 527-1,2	Mpa	<b>75</b>	Speed 50 mm/min
Flexural Max Strength	ISO 178	Mpa	<b>110</b>	Speed 1 mm/min
CHARPY Unnotched Impact ( -25°C )	ISO 179/1eU	KJ/m <sup>2</sup>	<b>N.B.</b>	
CHARPY Notched Impact ( +23°C )	ISO 179/1eA	KJ/m <sup>2</sup>	<b>3,2</b>	
CHARPY Unnotched Impact ( +23°C )	ISO 179/1eU	KJ/m <sup>2</sup>	<b>N.B.</b>	
<b>FLAMMABILITY</b>				
Oxigen index	ASTM D2863	%	<b>23</b>	
Flame Behaviour (0,97 mm)	UL94	Class	<b>V2</b>	
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	<b>750</b>	
<b>THERMAL</b>				
Softening Temperature - 1 kg (VST/A/50)		°C	<b>210</b>	50°C / h
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	<b>200</b>	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	<b>74</b>	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	<b>165</b>	

These value are for natural color only. Colorant or other additives may alter some or all of these property. The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits nor used alone as the basis of design.



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PROPERTY	METHOD	unit	VALUE	condition
<i>Continuous service temperature (20.000 h)</i>	IEC 60216	°C	<b>80</b>	
<i>Continuous service temperature (short term)</i>	IEC 60216	°C	<b>100</b>	
<i>Coefficient of linear thermal expansion</i>	ISO 11359-1,-2	K <sup>-1</sup>	<b>7-8x10exp(-5)</b>	-30°C /+30°C

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Soragna, 19/03/2018

## COMPLIANCE CERTIFICATE

We hereby confirm that the following grades

**1309000IP    TAROMID B 280 S NATURAL**

are formulated with component materials that comply with **European Directive 2011/65/EC** (RoHS 2) and do not contain **substances SVHC included in the “Candidate List”** published by ECHA in a concentration above 0.1% by weight (REACH Regulation 1907/2006) updated to the 12<sup>th</sup> January 2017, as substance intentionally added (\*).

(\*) “intentionally added” shall mean “deliberately utilized in the formulation of a material, to provide a specific characteristic or quality in the final product”.

This technical evaluation refers only to the mentioned products. Taro Plast SpA doesn't perform analysis to verify the presence of these substances and cannot guarantee the compliance of the final application depending on the process of manufacturing.

The information in this document, to our knowledge, refers to the current regulations at the time and date of issue. Because of possible changes in the underlying legislation and regulations, it is the customer's responsibility to verify the status of the document and to request the updated certificate eventually.

Taro Plast spa  
Product Safety

All information given by Taro Plast are based on the best of its knowledge and current procedures in effect.

# KOCETAL<sup>®</sup> K300

Polyacetal, General Purpose, Injection Molding, Medium Viscosity

Properties	Measurement condition	Test Method	Unit	Typical value
<b>Physical</b>				
Density		ASTM D792	-	1.41
Melt Flow Index	190 °C, 2.16 kg	ASTM D1238	g/10min	9.0
Shrinkage		ASTM D955	%	1.8-2.2
Water Absorption	23 °C, H <sub>2</sub> O, 24 hr	ASTM D570	%	0.22
<b>Mechanical</b>				
Tensile Strength at Yield (3.2mm)	50 mm/min	ASTM D638	MPa	64
Nominal Strain at Break(3.2mm)	50 mm/min	ASTM D638	%	40
Flexural Strength (3.2mm)	2 mm/min	ASTM D790	MPa	94
Flexural Modulus (3.2mm)	2 mm/min	ASTM D790	MPa	2,500
Izod Impact Strength (6.4mm)		ASTM D256		
(Notched)	23 °C		J/m	67
	-30 °C		J/m	-
Rockwell Hardness	M scale	ASTM D785	-	80
<b>Thermal</b>				
Melting Point	20 °C/min	ASTM D3418	°C	167
Heat Deflection Temperature	1.8 MPa	ASTM D648	°C	110
Coefficient of linear expansion	MD	ASTM D696	× 10 <sup>-5</sup> cm/cm·°C	13
Flammability (0.8mm)		UL94	Class	HB
<b>Electrical</b>				
Dielectric Strength		IEC 60243	kV/mm	-
Volume Resistivity		IEC 60093	Ω·cm	-
Surface Resistivity		IEC 60093	Ω/sq	10 <sup>13</sup> ~ 10 <sup>14</sup>

※ 1Mpa = 10.197162 Kgf/cm<sup>2</sup>, 1J/m = 0.10197 Kgf·cm/cm, ( Test specimen Thickness )

Updated: 2017-10-31

The values of each item in this document provide general information about the product and may be different from actual ones as reference dimensions for customer's convenience of material selection. This information cannot be viewed as a Certificate of Analysis(COA) issued by the Company to customers, nor can it be used as a basis for legal disputes such as lawsuits. The value of each item cannot be compared with the measurement result of other environment, equipment and method because it is measured under the specific condition using the existing measurement equipment and external authorized agency equipment. The characteristics described above are subject to change, and you are solely responsible for the determination and use of this product. In addition, these materials do not apply when adding pigments and other additives to the product depending on the customer's purpose of use. The value of the shrinkage factor in the above data is the value measured under the specific injection condition using our standard test piece and may be changed according to other test piece (product) and condition. Therefore, it is the customer's responsibility to apply the correction by considering the required characteristics of the molded product, the mold design condition, the product shape, the injection conditions, etc. Even if there is a difference in the shrinkage rate of the product in the mold manufactured by applying this shrinkage ratio, we also assume no guarantee or liability.

## Processing Guide (Injection Molding)

Drying Temperature(℃)	80 ~ 90	(Dehumidifying Dryer)		
Drying Time(hr)	3 ~ 5			
Processing Moisture Content(%)	≤ 0.1			
Cylinder Temperature(℃)	Nozzle	Front	Middle	Rear
	180 ~ 200	180 ~ 200	170 ~ 190	160 ~ 180
Mold Temperature(℃)	60 ~ 80			

## Contact Us

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Updated: 2017-10-31

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## Product Information

### Standard Grade

## KOCETAL<sup>®</sup>

KOCETAL<sup>™</sup> refers to polyacetal resin of a copolymer type. And is a material of an excellent quality with features of excellent anti-friction/anti-wear, chemical-resistance, heat-resisting stability, precise dimensions and molding abilities. It is mainly applied in gear or roller, and is used for various purposes over the fields of cars, office equipment and living materials. Following POM (Brand name: made by our independent technology development, Kolon Plastics has developed low-VOCs (volatile KOCETAL) products that are organic chemicals) POM resin of the world-best quality with almost no emission during the process of formaldehyde that is harmful to human body for the first time in Korea.

## KOCETAL<sup>®</sup> K300

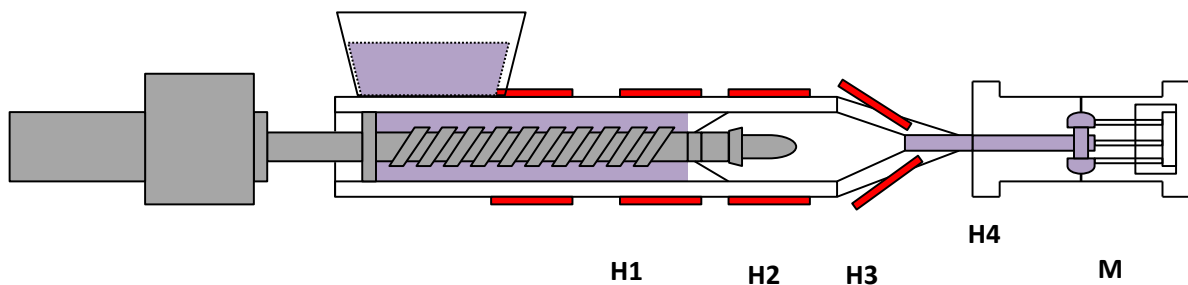
: KOCETAL<sup>®</sup> K300 is a general injection moldings grade with a good mechanical properties for wide

Properties	Test Method	Unit	Value	
<b>Physical</b>				
Specific Gravity	ISO 1183	g/cm <sup>3</sup>	1.41	
Melt Index (190°C, 2.16kg)	ISO 1133	g/10min	9.0	
Shrinkage	ISO 294	%	2.0	
Water Absorption	23°C, H <sub>2</sub> O, 24hr	ISO 62	%	0.59
<b>Mechanical</b>				
Tensile Strength	23°C	ISO 527-1/2	MPa	65
Tensile Elongation	23°C	ISO 527-1/2	%	35
Flexural Strength	23°C	ISO 178	MPa	85
Flexural Modulus	23°C	ISO 178	MPa	2,700
Notched Charpy Impact Strength	23°C	ISO 179/1eA	kJ/m <sup>2</sup>	7.0
Rockwell Hardness		ISO 2039-2	M scale	80
<b>Thermal</b>				
Melting Point		ISO 11357-1	°C	166
Heat Deflection Temperature		ISO 75		
	1.8 MPa		°C	95
Flammability(0.8mm)		UL94		HB

## Electrical

Dielectric strength	IEC 60243	kV/mm	19
Volume Resistivity	IEC 60093	$\Omega \cdot \text{cm}$	$1 \times 10^{14}$
Surface Resistivity	IEC 60093	$\Omega$	$1 \times 10^{16}$

## Processing Guide (Injection Molding)



	H1	H2	H3	H4
Cylinder Temperature(°C)	180	190	190	200
Mold Temperature(°C)	60~80			
Limitation of Processing Temp. (°C)	220			
Pre-drying	80~90°C, 3 hrs			

The above-mentioned data was measured by Kolon Plastics, inc., under certain conditions and environment. Therefore, it can not be compared with the data measured under different conditions and environment. And not guaranteed and no warranty. If other additives and pigments are used on this product, The above data cannot be applied. The data can not be used as the evidence of legal proceedings.

## Contact

[www.kolonplastics.com](http://www.kolonplastics.com)