

Ultrason® KR 4113 (PESU+PTFE)-(CF+CD)30...

BASF

基于PES带30 %填充料的化合物。填充料系统、碳纤维混合物、石墨和PTFE粉极大地提高了Ultrason的摩擦性能。此外，该产品具有很小的膨胀系数和在热油中膨胀的可能性。

根据ISO 1043-1:

PESU-(CF ZD)的缩写名称

流变性能	干 / 湿	单位	试验方法
ISO数据			
熔体体积流动速度, MVR	14 / *	cm³/10min	ISO 1133
温度	360 / *	°C	-
载荷	10 / *	kg	-
模塑收缩率, 平行	0.3 / *	%	ISO 294-4, 2577
模塑收缩率, 垂直	0.5 / *	%	ISO 294-4, 2577

机械性能	干 / 湿	单位	试验方法
ISO数据			
拉伸模量	- / 11100	MPa	ISO 527
断裂应力	- / 115	MPa	ISO 527
断裂伸长率	- / 1.5	%	ISO 527
无缺口简支梁冲击强度, +23°C	- / 24	kJ/m²	ISO 179/1eU
无缺口简支梁冲击强度, -30°C	- / 22	kJ/m²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	- / 6	kJ/m²	ISO 179/1eA
简支梁缺口冲击强度, -30°C	- / 5	kJ/m²	ISO 179/1eA

热性能	干 / 湿	单位	试验方法
ISO数据			
玻璃化转变温度 (10°C/min)	225 / *	°C	ISO 11357-1/-2
热变形温度, 1.80 MPa	222 / *	°C	ISO 75-1/-2
热变形温度, 0.45 MPa	225 / *	°C	ISO 75-1/-2
线性热膨胀系数, 平行	11 / *	E-6/K	ISO 11359-1/-2
线性热膨胀系数, 垂直	44 / *	E-6/K	ISO 11359-1/-2

电性能	干 / 湿	单位	试验方法
ISO数据			
体积电阻率	- / 8500	Ohm*m	IEC 62631-3-1
表面电阻率	* / 4000	Ohm	IEC 62631-3-2
介电强度	- / 8	kV/mm	IEC 60243-1

其它性能	干 / 湿	单位	试验方法
ISO数据			
吸水性	1.5 / *	%	类似ISO 62
吸湿性	0.5 / *	%	类似ISO 62
密度	1500 / -	kg/m³	ISO 1183

模塑测量的特殊性能	干 / 湿	单位	试验方法
ISO数据			
粘数.	56 / *	cm³/g	ISO 307, 1157, 1628

试样制备条件	数值	单位	试验方法
ISO数据			
注塑, 熔体温度	370	°C	ISO 294
注塑, 模具温度	170	°C	ISO 294
注塑, 注射速度	200	mm/s	ISO 294
注塑, 保压压力	80	MPa	ISO 294

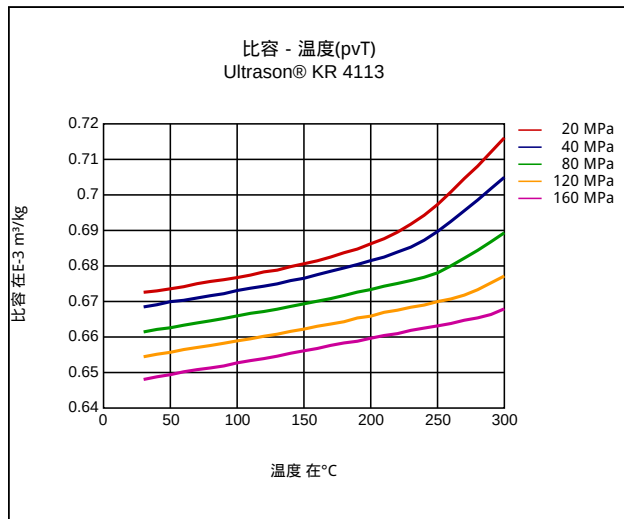
加工推荐 (注塑)	数值	单位	试验方法
预干燥-温度	140	°C	-
预干燥-时间	4	h	-
加工湿度	≤ 0.02	%	-
注塑熔体温度	350 - 390	°C	-
模具温度	150 - 190	°C	-

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函数

比容 - 温度(pvT)



特征

加工方法

注塑, 片材挤出成型

添加剂

润滑剂

供货形式

粒料

特殊性能

提高导电性, 防静电的

注塑

PREPROCESSING

Pre/Post-processing, max. allowed water content: .02 %

Pre/Post-processing, Pre-drying, Temperature: 140 °C

Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

injection molding, Melt temperature, range: 350 - 390 °C

injection molding, Melt temperature, recommended: 370 °C

injection molding, Mold temperature, range: 150 - 190 °C

injection molding, Mold temperature, recommended: 170 °C

injection molding, Dwell time, thermoplastics: 10 min

Pretreatment

Drying temperature: 130 - 150°C

Drying time: minimum 4h

recommended dryer: vaccum or dry air dryer

maximum moisture: 0,02 - 0,05%

Ultrason® can be injection molded by any type of machinery on the market, provided that the plasticizing unit and the mold temperature control system have been configured appropriately. The machinery manufacturer must be consulted if any doubts exist on the ability of various parts to withstand the high temperatures required (e.g. barrel, barrel head, bolted connections, etc.)

Long residence time in combination with high temperatures should be avoided e.g. by pump out material at regular intervals. During extended interruptions, the barrel temperature should be lowered to about 250-280°C.

It has been found out that heating to the requested processing temperature and shutting down or lowering the temperature is best carried out in two steps.

First, the barrel temperatures are set at the lower processing temperature range for the particular thermoplastic (340 - 350 °C). As soon as these temperatures have reached a steady state, the material in the barrel is pumped out. Second, the barrel temperature can be set to the required processing temperature or the heaters can be shut down.