

ROTEX®

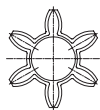
Flexible jaw couplings

Properties of standard spiders

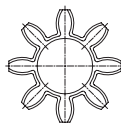
ROTEX® 14



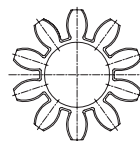
ROTEX® 19



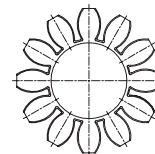
ROTEX® 24 - 65



ROTEX® 75 - 160








ROTEX® 180



Degree of hardness





Spider type (Shore hardness)	92 Shore A (T-PUR®)	92 Shore A
	 <p>T-PUR®</p>	
Size	14 to 180	14 to 90
Material	T-PUR®	Polyurethane (PUR)
Permissible temperature range		
Permanent temperature	-40 °C to +120 °C	-40 °C to +90 °C
Short-term temperature	-40 °C to +150 °C	-40 °C to +120 °C
Properties	<ul style="list-style-type: none"> - significantly higher service life expectancy - very good temperature resistance - improved damping of vibrations - good damping, medium flexibility - suitable for all hub materials 	<ul style="list-style-type: none"> - good damping, medium flexibility - suitable for all hub materials
Spider type (Shore hardness)	98 Shore A (T-PUR®)	98 Shore A
	 <p>T-PUR®</p>	
Size	14 to 180	14 to 90
Material	T-PUR®	Polyurethane (PUR)
Permissible temperature range		
Permanent temperature	-40 °C to +120 °C	-30 °C to +90 °C
Short-term temperature	-40 °C to +150 °C	-40 °C to +120 °C
Properties	<ul style="list-style-type: none"> - significantly higher service life expectancy - very good temperature resistance - improved damping of vibrations - transmission of high torques with average damping - recommended hub material: steel, GJL and GJS 	<ul style="list-style-type: none"> - transmission of high torques with average damping - recommended hub material: steel, GJL and GJS
Spider type (Shore hardness)	64 Shore D (T-PUR®)	
	 <p>T-PUR®</p>	
Size	14 to 180	
Material	T-PUR®	
Permissible temperature range		
Permanent temperature	-40 °C to +120 °C	
Short-term temperature	-40 °C to +150 °C	
Properties	<ul style="list-style-type: none"> - significantly higher service life expectancy - very good temperature resistance - improved damping of vibrations - transmission of very high torques with low damping - recommended hub material: steel and GJS 	

ROTEX®

Flexible jaw couplings

Technical data and properties of special spiders

		
Description	PA	PEEK
Material	Polyamide	Polyetheretherketone
Permissible temperature range		
Permanent temperature	-40 °C to +100 °C ¹⁾	up to +180 °C
Short-term temperature	-40 °C to +120 °C ¹⁾	up to +250 °C
Properties	<ul style="list-style-type: none"> - small twisting angle and high torsion spring stiffness - transmission of very high torques with very low damping - good resistance to chemicals ¹⁾ - recommended hub material: steel - high restoring forces with displacements 	<ul style="list-style-type: none"> - small twisting angle and high torsion spring stiffness - transmission of very high torques with very low damping - highly temperature-resistant, resistant to hydrolysis - good resistance to chemicals - recommended hub material: steel - high restoring forces with displacements

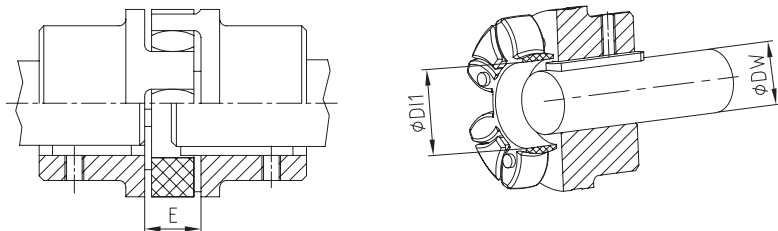
¹⁾ different properties depending on compound

Torques			
ROTEX® size	PA, PEEK		
	T _{KN} [Nm]	T _{K max} [Nm]	T _{KW} [Nm]
14	22	44	5.5
19	30	60	8.0
24	105	210	27.5
28	280	560	73
38	565	1130	147
42	785	1570	204
48	915	1830	238
55	1200	2400	312
65	1645	3290	427
75	2560	5130	667
90	6300	12600	1640
100	8650	17300	2250
110	10500	21000	2730
125	13000	26000	3380

Temperature factor S _t										
	-40 °C +30 °C	+40 °C	+50 °C	+60 °C	+70 °C	+80 °C	+90 °C	+100 °C	+110 °C	+120 °C
PA	1.0	1.0	1.0	1.0	1.2	1.4	1.6	-	-	-
PEEK	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

With temperatures below -40 °C please consult with KTR.

Installation of spider



Shaft ØDW with feather key (acc. to DIN 6885 sheet 1) protruding into the spider ØD11

Mounting dimensions																	
ROTEX® size	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
Distance dimension E	13	16	18	20	24	26	28	30	35	40	45	50	55	60	65	75	85
Dimension D11	10	18	27	30	38	46	51	60	68	80	100	113	127	147	165	190	220
Dimension DW ²⁾	7	12	20	22	28	36	40	48	55	65	80	95	100	120	135	160	185

²⁾ If the shaft diameter is smaller than or equal to dimension D11, one shaft end or both shaft ends may protrude with the feather keyway into the spider.