

Technical Data Sheet

optibelt RR

PU Round Belt, Open-Ended, Endless Joined



Dimensions, Tolerances

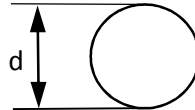
Diameter: 2 - 20 mm

Diameter Tolerances:

2 - 7 mm: ± 0.2mm
 8 - 12 mm: ± 0.3mm
 13 - 20 mm: ± 0.5 mm

Construction

Polyurethane: Thermoplastic, 88 Shore A, green rough



Belt elongation, tension, length and weight						
Diameter d [mm]	2 ¹	3	4	5	6	7 ¹
Belt tension [N] at 3% elongation, tension 1.20 N/mm ²	4	9	15	24	34	46
Belt tension [N] at 6% elongation, tension 2.10 N/mm ²	7	15	26	41	59	81
Belt tension [N] at 8% elongation, tension 2.90 N/mm ²	9	20	36	57	82	111
Recommended pre-tension [%]	6-8	6-8	6-8	6-8	5-6	5-6
Minimum pulley diameter d _{min} [mm]	20	25	35	45	55	65
Weight per metre [g/m]	3,4	8,2	14,8	23,0	33,6	45,2
Roll length on a reel [m]	200	200	200	200	100	100
Minimum belt length, joined [mm]	200	200	200	200	200	300

Elongation, belt tension, belt length, belt weight					
Diameter d [mm]	8 ¹	9 ¹	10 ¹	12 ¹	15
Belt tension [N] at 3% elongation, tension 1.20 N/mm ²	60	76	94	136	212
Belt tension [N] at 6% elongation, tension 2.10 N/mm ²	106	134	165	238	371
Belt tension [N] at 8% elongation, tension 3.90 N/mm ²	146	185	228	328	512
Recommended pre-tension [%]	5-6	5-6	5-6	3-5	3-5
Minimum pulley diameter d _{min} [mm]	75	85	100	115	135
Weight per metre [g/m]	59.2	76.1	93	133.0	210.3
Roll length on a reel [m]	100	100	100	50	50
Minimum belt length, joined [mm]	300	300	300	400	400

¹ Non-stock item, minimum order quantity on request. Intermediate size possible on request.

Elongation

3 % Elongation
 6 % Elongation
 8 % Elongation

Tension

1.20 N/mm²
 2.10 N/mm²
 2.90 N/mm²

Belt speed and temperature

Maximum speed v_{max}: 15 m/s
 Temperature: applicable from -20°C to +80°C

Coefficient of friction

Polished steel:
 Aluminium:
 Polyethylene:

RR rough

0.55
 0.45
 0.33

Calculation of assembling length L

$$L = L_{nom} - \text{pre-load [mm]}$$

Nominal length L_{nom} [mm]
 Selected pre-load [%]