Technical datasheet

PU Linear T5 Aramid L.Blue FG NC

Article code: TBPU000283

General information

Productgroup	Timing belts, PU Linear
Industry segment	Food: Meat & poultry, Fish & seafood; General industry
Main product feature	Slip-grip, Positive drive, Wear resistant

Belt construction

Tension member		aramid
Material	**body**	Polyurethane
Surface	**tooth side**	Polyurethane
	back side	Polyurethane

Characteristics

Food Grade (FG)	yes	According: EC 1935/2004, EU 10/2011; FDA
Anti-static (AS)	no	
Oil & Fat resistance	Good	

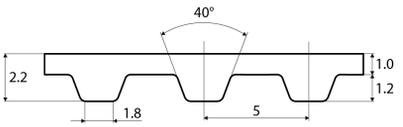
Technical data

Tooth	profile		T5			
	pitch		5	mm	0.2	in.
Hardness body material	according to ISO 868		85A	Shore		
Belt thickness			2.3	mm	0.09	in.
Belt weight			2	kg/m²	0.41	lbs/ft²
Coefficient of friction	tooth side to steel	dynamic	0.5			
Operating temperature	continuous	from/to	-10 / 80	°C	14 / 176	°F
Minimum pulley diameter	A) without counter flexing	number of teeth, t1	10			
		d1	15.92	mm	0.63	in.
		d2	25	mm	0.98	in.
	B) with counter flexing	number of teeth, t1	15			
		d1	23.87	mm	0.94	in.
		d2	30	mm	1.18	in.
Belt width*	maximum		100	mm	3.94	in.
Endless length	minimum		500	mm	19.69	in.
Manufacturing length	standard		100000	mm	328.08	ft.

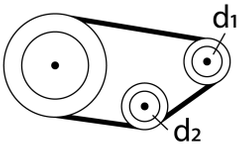
* some timing belt types are available in greater belt widths.

Reference images

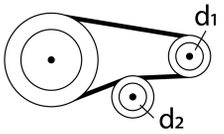
Side view



A) without counter flexing



B) with counter flexing



Fabrication

This information on the fabrication options is general, please contact Ammeraal Beltech for the specific fabrication possibilities of the timing belt of your choice.
Open end, prepared splice, spliced endless with mechanical fastener or a pin joint fastener.
Cleats welded or mechanically attached, metal teeth, guides welded or glued.
Covers can be welded, glued, coated or vulkanized onto the back side of the timing belt.
Thermoplastic covers can be embossed. Perforations, lateral and logitudinal slots, lateral and longitudinal profiles

Additional Information

Tooth profile according to standard: metric ISO 17396 , imperial ISO 5296-1, curvilinear ISO 13050, depending on the belt type.

This sheet contains typical values, which apply to a temperature of approx. 20 °C (68 °F) unless otherwise stated, individual data may differ.

Consult our specialists for further information like technical calculations. Instructions regarding joining, storage & maintenance and tracking & tensioning.

Belt load

Standard belt width [mm]	Allow. tensile load Linear open end & Torque [N]	Allow. tensile load Linear welded endless [N]	Breaking force [N]	Spring force [N]
10	430	215	1500	75000
16	610	305	2400	135000
25	980	490	3750	210000
32	1140	570	4675	260000
50	1800	900	7500	409000
75	2700	1350	11250	590000
100.1	3600	1800	15000	780000

Tooth load

Speed rpm [1/min]	Specific tooth force [N/mm]	Specific power [W/mm]	Specific torque [Ncm/mm]
0	2.452	0.000	0.195
25	2.360	0.005	0.187
50	2.274	0.009	0.181
75	2.230	0.014	0.177
100	2.175	0.018	0.173
150	2.105	0.026	0.167
200	2.050	0.034	0.163
300	1.955	0.049	0.155
400	1.867	0.062	0.148
500	1.815	0.076	0.144
750	1.697	0.106	0.135
1000	1.626	0.136	0.129
1250	1.560	0.163	0.124
1500	1.500	0.188	0.119
1750	1.448	0.211	0.115
2000	1.403	0.234	0.111
3000	1.265	0.316	0.100
4000	1.166	0.389	0.092

Belt pulleys

Number of teeth	outer Ø [mm]	Effective Ø [mm]	Ø with flanges [mm]	Max. bore [mm]
10	15.05	15.92	20	6
11	16.64	17.51	22	6
12	18.23	19.01	23	6
13	19.82	20.69	25	8
14	21.41	22.28	26	8
15	23.05	23.87	28	10
16	24.59	25.46	30	12
17	26.19	27.06	31	14
18	27.78	28.65	33	16
19	29.37	30.24	34	16
20	30.96	31.83	36	18
21	32.55	33.42	37	20
22	34.14	35.01	39	22
23	35.74	36.61	41	24
24	37.33	38.20	42	24
25	38.92	39.79	44	25
26	40.51	41.38	45	25
27	42.10	42.97	47	27
28	43.69	44.56	49	29
29	45.29	46.16	50	31
30	46.88	47.75	52	33
31	48.47	49.34	53	35
32	50.06	50.93	55	37
33	51.65	52.52	57	39
34	53.24	54.11	58	39
35	54.83	55.70	60	40
36	56.43	57.30	61	42
37	58.02	58.89	63	43
38	59.61	60.48	65	45
39	61.20	62.07	66	45
40	62.79	63.66	68	47
41	64.38	65.25	69	48
42	65.98	66.85	71	50
43	67.57	68.44	72	52
44	69.16	70.03	74	52
45	70.75	71.62	76	54
46	72.34	73.21	77	56
47	73.93	74.80	79	58
48	75.52	76.39	80	60
49	77.12	77.99	82	60
50	78.71	79.58	84	60
51	80.30	81.17	85	62
52	81.89	82.76	87	64
53	83.48	84.35	88	66
54	85.07	85.94	90	66
55	86.67	87.54	92	68
56	88.26	89.13	93	70
57	89.85	90.72	95	72
58	91.44	92.31	96	74
59	93.03	93.90	98	74
60	94.62	95.49	100	76
61	96.21	97.08	101	79
62	97.81	98.68	103	80
63	99.40	100.27	104	82
64	100.99	101.86	106	82
65	102.58	103.45	108	84
66	104.17	105.04	109	86
67	105.76	106.63	111	88
68	107.36	108.23	112	90
69	108.95	109.82	114	90
70	110.54	111.41	115	90
71	112.13	113.00	117	92
72	113.72	114.59	119	94
73	115.31	116.18	120	96
74	116.90	117.77	122	96
75	118.50	119.37	123	98
76	120.09	120.96	125	100
77	121.68	122.55	127	102
78	123.27	124.14	128	104
79	124.86	125.73	130	104
80	126.45	127.32	131	106
81	128.05	128.92	133	108
82	129.64	130.51	135	110
83	131.23	132.01	136	110
84	132.82	133.69	138	112
85	134.41	135.28	139	114
86	136.00	136.87	141	116
87	137.59	138.46	143	119
88	139.19	140.06	144	120
89	140.78	141.65	146	120
90	142.37	143.24	147	122
91	143.96	144.83	149	124
92	145.55	146.42	150	126
93	147.14	148.01	152	126
94	148.74	149.61	154	129
95	150.33	151.20	155	130
96	151.92	152.79	157	130
97	153.51	154.38	158	132
98	155.10	155.97	160	132
99	156.69	157.56	162	134
100	158.29	159.16	163	136
101	159.88	160.75	165	139
102	161.47	162.34	166	140
103	163.06	163.93	168	140
104	164.65	165.52	170	140
105	166.24	167.11	171	142
106	167.83	168.70	173	146
107	169.43	170.30	174	146
108	171.02	171.89	176	148
109	172.61	173.48	178	150
110	174.20	175.07	179	150
111	175.79	176.66	181	152
112	177.38	178.25	182	152
113	178.98	179.85	184	152
114	180.57	181.44	185	154
115	182.16	183.03	187	154
116	183.75	184.62	189	154
117	185.34	186.21	190	154
118	186.93	187.80	192	156
119	188.52	189.39	193	156
120	190.12	190.99	195	156

Standard