

Friction coefficient of coatings for transportation applications

To design transport applications, coefficients of friction were determined for a selection of coating materials for different types of conveyed goods.

The coefficients of friction are only a guideline for selecting the best possible coating.

The coefficients of friction are determined when dry and new.

The coefficients of friction may differ due to the effects of dust, dirt, abrasion, oils, fats, moisture, temperatures, etc.. Furthermore, small deviations in the material quality of production batches lead to low other values.

For the inclined transport, ascent or descent of the conveyed goods, we indicate the maximum recommended pitch angle (only if determined).

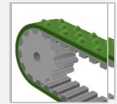
ShoreA	static friction - HRW				gradient angle - SGW°			
	Polythene PE		Aluminium Al		Steel		flat glass	
	HRW	SGW°	HRW	SGW°	HRW	SGW°	HRW	SGW°

Timing belts without coating

	ShoreA	HRW	SGW°	HRW	SGW°	HRW	SGW°	HRW	SGW°
Polyurethane PU	92	0,59		0,89		0,96			
Polyamide fabric on tooth side (PAZ)	92	0,22		0,3		0,3			

Coatings (Polyurethane PU)

	ShoreA	HRW	SGW°	HRW	SGW°	HRW	SGW°	HRW	SGW°
Celloflex	RG400	0,74	37	0,74	37	0,89	42	0,96	44
Sylomer yellow	RG150	1,26	52	1,63	58	1,19	50	1,56	57
Sylomer blue	RG220	1,33	53	1,63	58	1,26	52	1,63	58
Sylomer green	RG300	1,26	52	1,48	56	1,19	50	1,63	58
Sylomer brown	RG400	1,33	53	1,63	58	1,48	56	1,63	58
Sylomer red	RG510	1,41	55	1,63	58	1,41	55	1,63	58
Sylomer grey	RG670	1,33	53	1,63	58	1,41	55	1,63	58
PU transparent	85	1,63	58	1,41	55	1,41	55	1,63	58
PU transparent	65	1,19	50	1,19	50	1,19	50	1,56	57
PU transparent grinded	65	1,19	50	1,26	52	1,19	50	1,33	53
PU yellow or grey	60	0,74	37	0,74	37	0,96	44	1,11	48
Polythan brown	70	0,89	42	0,96	44	0,89	42	1,04	46



ShoreA	static friction - HRW				gradient angle - SGW°			
	Polythene PE		Aluminium AL		Steel		flat glass	
	HRW	SGW°	HRW	SGW°	HRW	SGW°	HRW	SGW°

Coatings (PVC / Polyvinylchlorid)

PVC blue	50	1,04	46	0,89	42	0,96	44	0,89	42
PVC white	65	0,96	44	0,81	39	0,89	42	0,81	39
Noppen white	65	0,74	37	1,19	50	0,89	42	1,33	53
Fischgrät white	55	0,59	31	0,96	44	0,96	44	1,63	58
Sägezahn white	55	0,81	39	1,04	46	0,74	37	1,33	53
Supergrip petrol	40	1,24	51	1,15	49	1,05	46	1,04	46
Supergrip weiß	55	0,95	43	0,93	43	0,81	39	1,33	53

Coatings (Rubber)

Supergrip black	65	0,52	27	0,70	35	0,67	34	0,59	31
Porol NE	RG220	1,63	58	1,63	58	1,63	58	1,63	58
EPDM	70	1,11	48	1,33	53	1,19	50	1,19	50
Gummi hell	65	0,96	44	1,26	52	1,04	46	1,48	56
Correx	40	1,63	58	1,63	58	1,63	58	1,63	58
Linatex	40	1,56	57	1,41	55	1,26	52	1,63	58
Linatrilite	50	1,26	52	1,48	56	1,19	50	1,63	58
Elastomer green	60	0,89	42	1,04	46	0,96	44	1,19	50
Schwammgummi	RG200	1,63	58	1,63	58	1,63	58	1,63	58
Viton	75	0,52	27	0,74	37	0,74	37	0,74	37

Coatings (others)

Chromleder		0,44	24	0,89	42	0,59	31	1,04	46
PES		0,15	9	0,3	17	0,37	20	0,37	20
Polyamid fabric	92	0,22	12	0,3	17	0,3	17	0,3	17