

Introduction

Les ressorts en polyuréthane sont des éléments de compression utilisés pour absorber l'énergie, amortir les chocs, réduire les vibrations et fournir une force de rappel progressive. Ils sont fabriqués par moulage ou usinage d'élastomères polyuréthanes à haute performance.



Propriétés mécaniques

Les ressorts en élastomère polyuréthane sont fabriqués avec deux mélanges différents, enregistrés sous les marques ADIPOL® (90 Shore A) et ULTRAFLEX® (82, 92 et 94 Shore A), qui se distinguent par des caractéristiques et des performances variées.

ADIPOL® offre d'excellentes performances pour un bon rapport qualité/prix ; on peut considérer une durée indicative de 400 000 cycles avant rupture et avec ULTRAFLEX®, il est possible de dépasser 800 000 cycles sans problème.

	Norme	Unité	43-061-XX	43-062-XX	43-063-XX	43-064-XX
Type de polyuréthane	-	-	ULTRAFLEX®	ADIPOL®	ULTRAFLEX®	ULTRAFLEX®
Dureté	ASTM2240	Shore A	82	90	92	94
Force de rupture	DIN 53504	Mpa	48	30	50	55
Allongement à la rupture	DIN 53504	%	560	360	475	500
Module à 300 %	DIN 53504	%	8,1	17	17,6	25
Résistance au déchirement	DIN 53515	kN/m	86	54	89	120
Compression set*	DIN 53517	%	25	23	18	19
Abrasion	DIN 53516	mm³	58	56	82	65
Rebond		%	43	52	39	45
Couleur			● Orange	● Jaune	● Rouge	● Vert

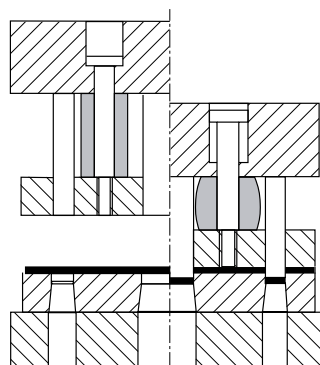
* Compression Set ou Déformation rémanente à la compression est la mesure de la déformation permanente après une charge de compression.

Résistance thermique

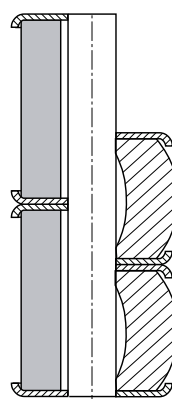
La température maximale de fonctionnement est de 80 °C. Il faut considérer que les caractéristiques mécaniques diminuent de 65 % dans ces conditions. Toutefois, une exposition à des températures pouvant atteindre 120 °C est permise pour de courtes périodes.

Le polyuréthane ADIPOL® résiste à - 40 °C. La limite conseillée pour la gamme ULTRAFLEX® est de +10 °C.

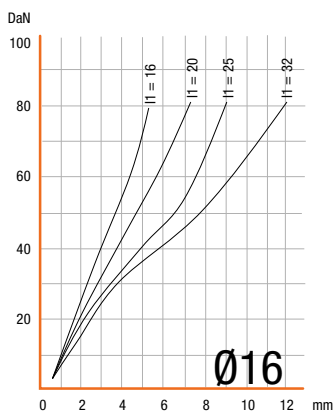
Applications



Amortissement du
serre-flan



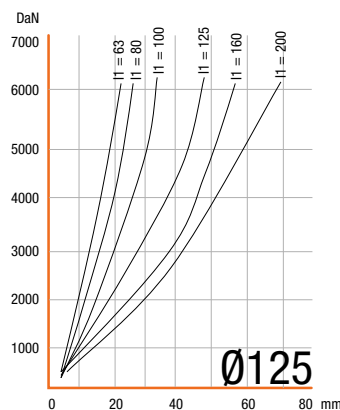
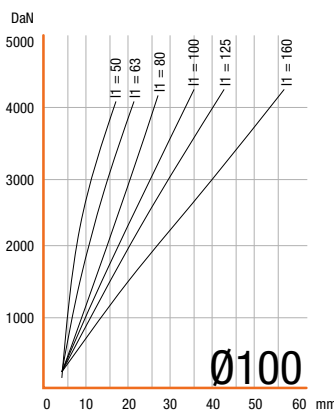
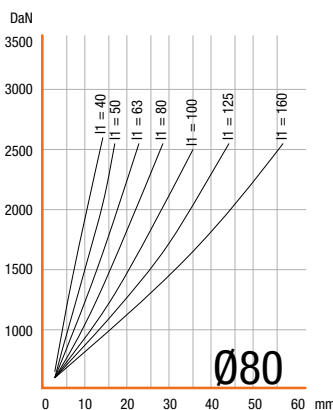
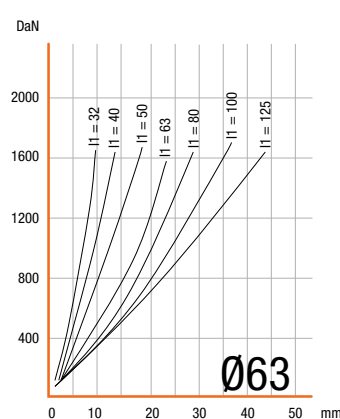
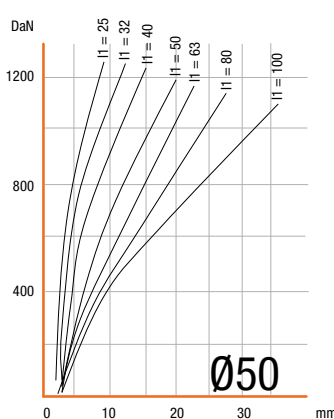
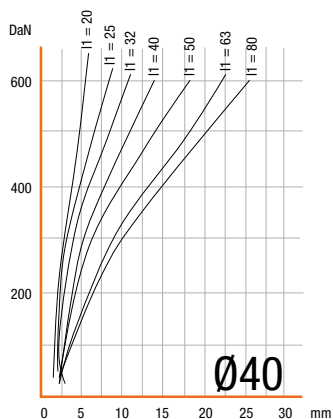
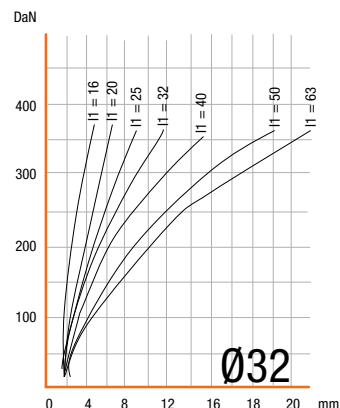
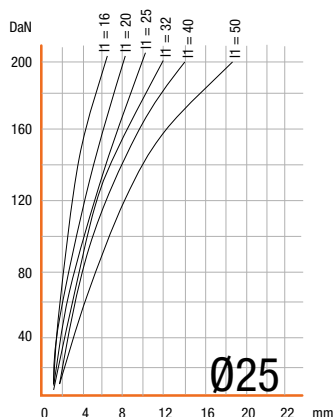
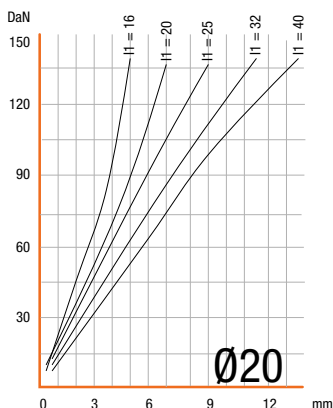
Montage de ressorts avec
rondelles métalliques

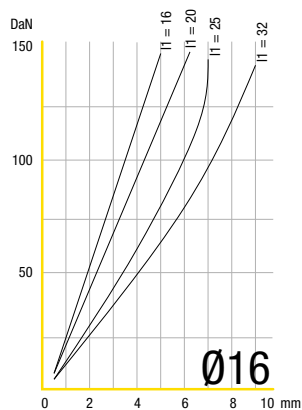


Ressorts élastomère 43-06

82 Shore A

Force en daN
 Course en mm
 l_1 = longueur du ressort en mm
 Déflexion max. 35%

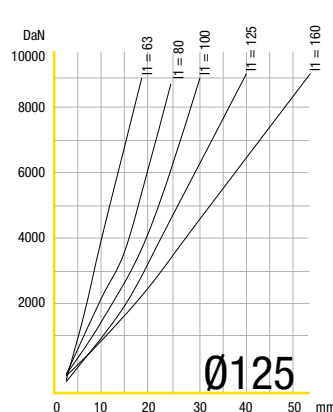
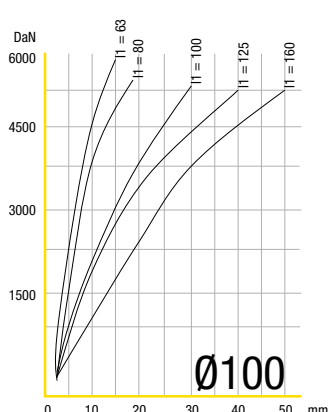
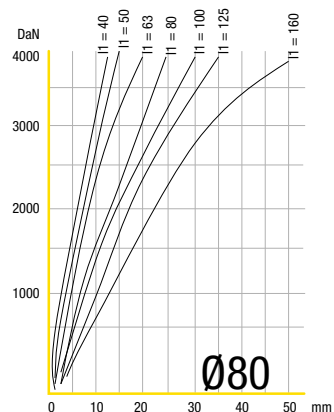
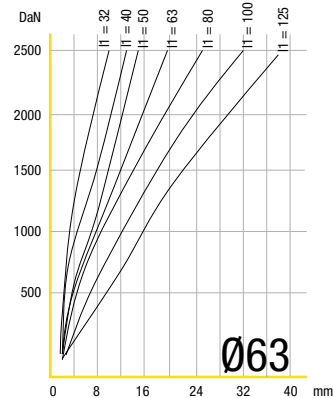
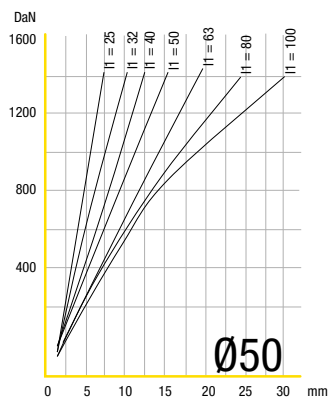
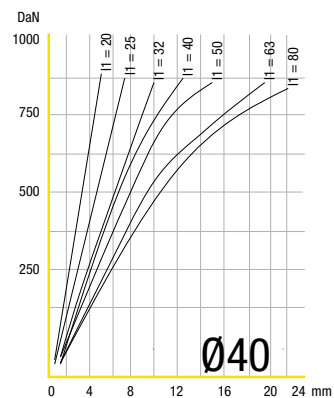
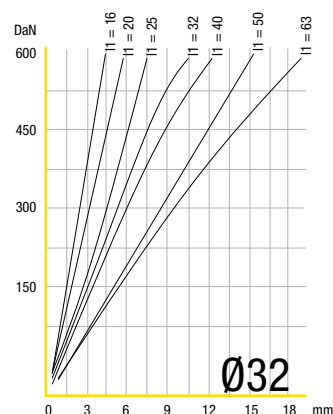
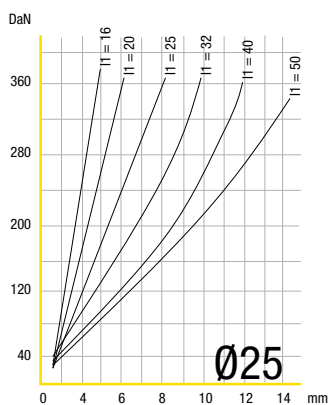
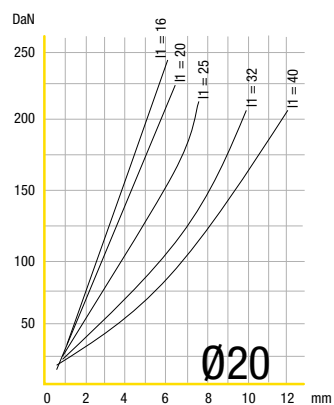


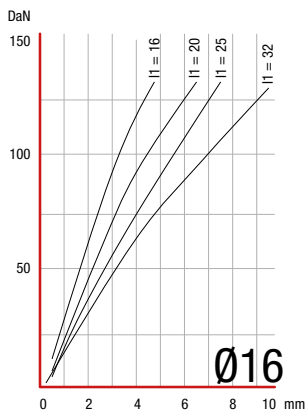


Ressorts élastomère 43-06

90 Shore A

Force en daN
 Course en mm
 l_1 = longueur du ressort en mm
 Déflexion max. 30%

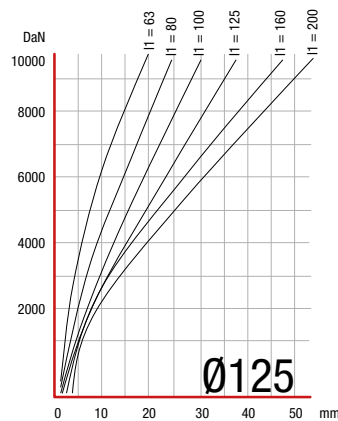
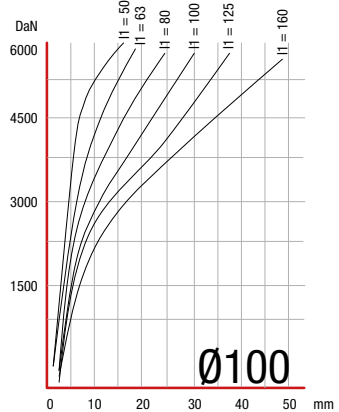
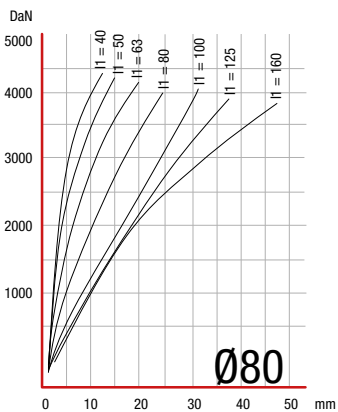
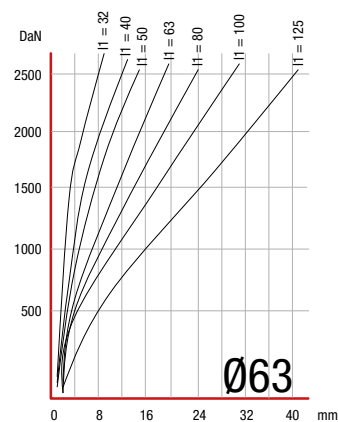
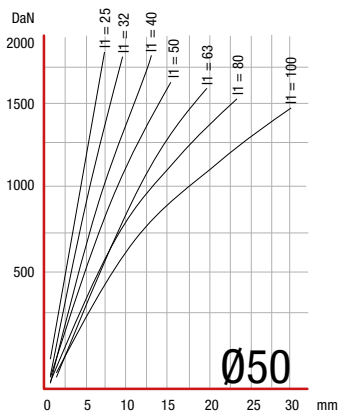
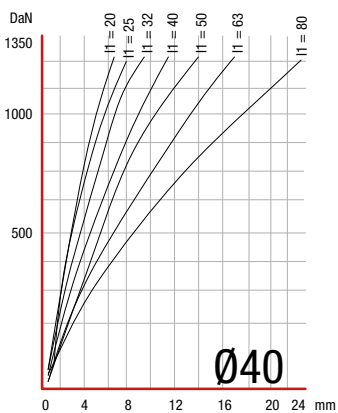
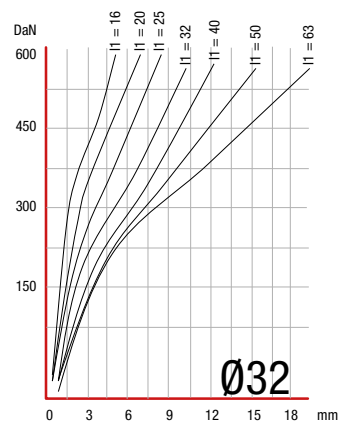
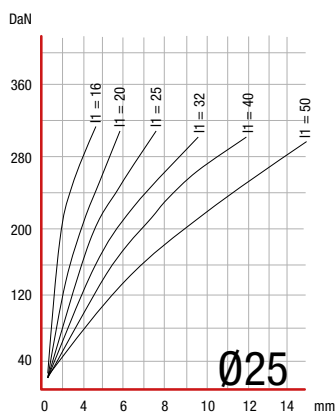
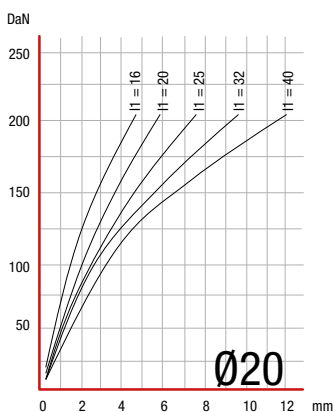


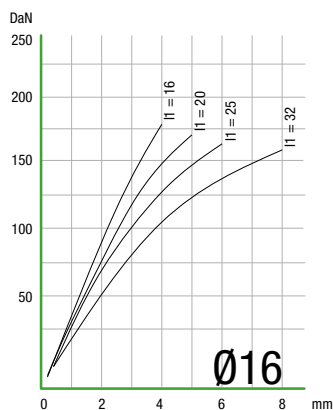


Ressorts élastomère 43-06

92 Shore A

Force en daN
 Course en mm
 l1 = longueur du ressort en mm
 Déflexion max. 30%





EMILE MAURIN®

**ELEMENTS STANDARD
MECANIQUES**

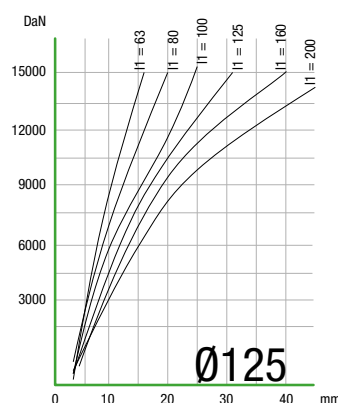
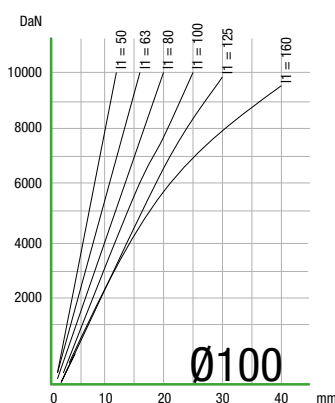
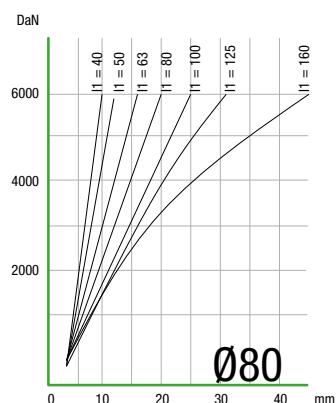
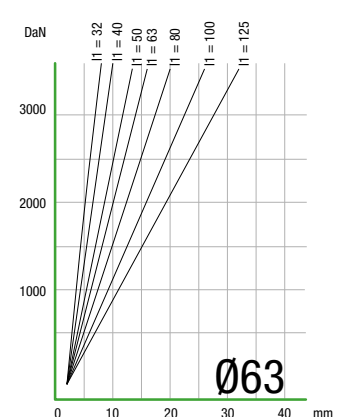
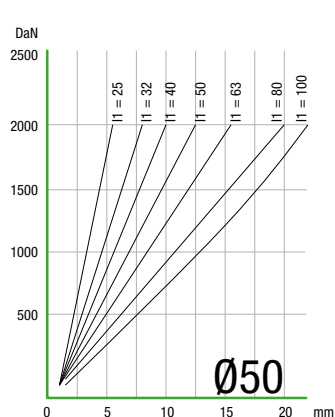
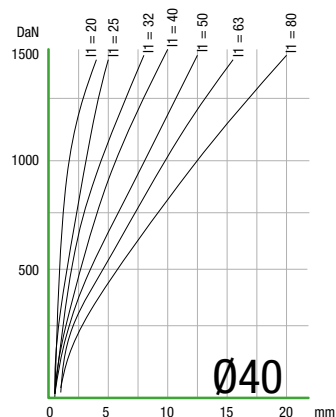
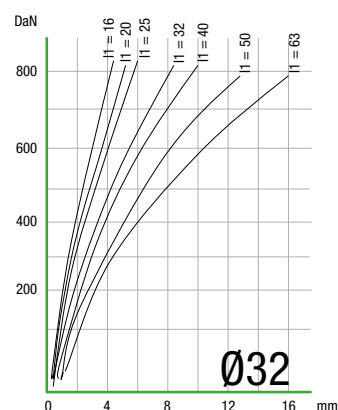
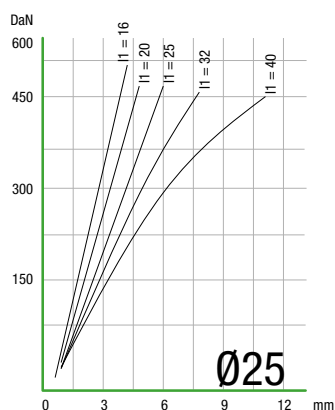
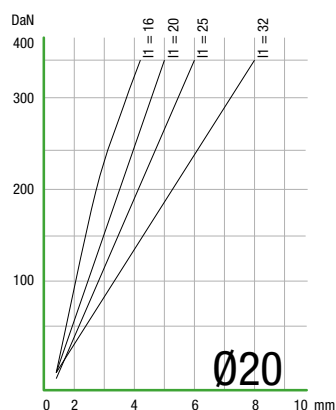
Ressorts élastomère 43-06 94 Shore A

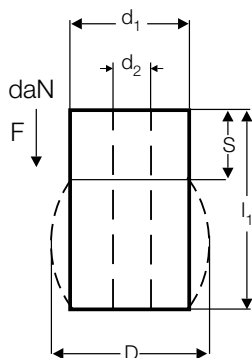
Force en daN

Course en mm

l_1 = longueur du ressort en mm

Déflexion max. 25%





Ressorts élastomère 43-06

MAX. DEFL.		82 Shore A ●				90 Shore A ●				92 Shore A ●				94 Shore A ●			
		35%				30%				30%				25%			
d1	d2	l1	S	D	F	S	D	F		S	D	F		S	D	F	
mm	mm	mm	mm	mm	daN	mm	mm	daN		mm	mm	daN		mm	mm	daN	
16	6,5	16	5,6	22	80	4,8	21	140		4,8	19	130		4,0	19	160	
		20	7			6				6				5			
		25	9			8				8				6			
		32	11,2			9,6				10				8,0			
20	8,5	16	6	28	150	5	27	150		5	26	200		4	25	325	
		20	7			6				6				5			
		25	9			8				8				6			
		32	11,2			10				10				8			
25	10,5	40	14	33	210	12	33	400		12	30	300		10	29	450	
		16	6			5				5				4			
		20	7			6				6				5			
		25	9			8				8				6			
32	13,5	32	11	43	360	10	42	580		10	41	580		8	38	800	
		40	14			12				12				10			
		50	18			15				15				13			
		63	22			18,9				19				16			
40	13,5	20	7	54	650	6	52	900		6	50	1200		5	47	1500	
		25	9			8				8				6			
		32	11			10				10				8			
		40	14			12				12				10			
50	17	50	18	65	1100	15	65	1800		15	62	1700		13	60	2000	
		63	22			18,9				19				16			
		80	28			24				24				20			
		100	35			30				30				25			
63	17	25	9	81	1600	8	76	2500		8	78	2500		6	74	3500	
		32	11			10				10				8			
		40	14			12				12				10			
		50	18			15				15				13			
80	21	63	22	103	2600	18,9	104	4000		19	98	4300		16	95	6000	
		80	28			24				24				20			
		100	35			30				30				25			
		125	44			37,5				38				31			
100	21	160	56	126	4300	48	130	5600		48	120	6500		40	120	10000	
		50	18			20				15				13			
		63	22			18,9				19				16			
		80	28			24				24				20			
125	27	100	35	160	6400	30	163	9000		30	152	10500		25	150	15000	
		125	43,7			37,5				37,5				31,2			
		160	56			48				48				40			
		200	70			60				60				50			