

Dimensional Lists/Technical Sheets

**Moulded parts for the Printing Industry
made of ACLATHAN® and ACLACELL®**



Functional and reliable: ACLA moulded parts for the Printing Industry



Two efficient materials: ACLATHAN und ACLACELL

Modern printing and finishing machines require components with high precision, reliability and economy. ACLA-moulded parts made of the high-grade polyurethane elastomers ACLATHAN and ACLACELL stand up to these requirements in an ideal way. Special compounds adapted to the special requirements of the printing industry guarantee a safe functioning and long service life of all parts.

Material properties

ACLATHAN

Homogeneous polyurethane elastomer with excellent mechanical wear and tear resistance

Hardness Range:
65 - 95 Shore A

ACLACELL

Cellular polyurethane elastomer (mixed cellular structure) with highly dynamic loading capacity and small transverse expansion as well as permanent deformation

Density:
300 - 650 kg/m³

Material advantages which will pay off

ACLATHAN and ACLACELL convince with a multitude of excellent properties which make them useful for the printing industry:

- excellent wear and tear as well as abrasion resistance
- high cutting resistance
- very good damping properties
- outstanding noise reduction and vibration absorption
- good resistance against inks and solvents
- wide temperature range (from -35°C to +80°C; -31°F to 176°F)

The ACLA-program for printing and finishing machines:

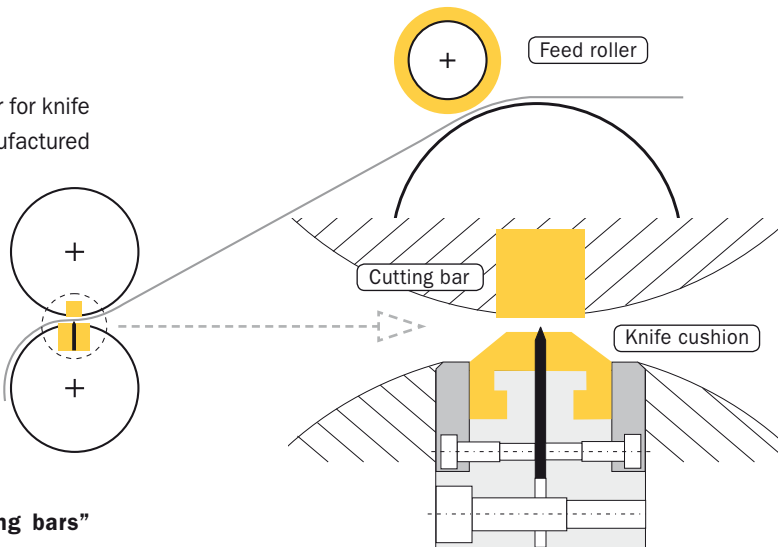
- Cutting bars
- Knife Cushions
- Damping bars
- AP Longlife Suction Cups
- Tension rollers
- Rollers
- Tugging rollers/Tugging rings
- Coatings for cylinders and stripes for cylinder coating
- Individual moulded parts as per drawing or sample i.e. newspaper clamps (transport clamps), wear and tear resistant parts, buffers and stoppers

ACLA moulded parts offer a most economical solution to all central points in the printing process and in processing



Cutting bars

are used as underlayer for knife beams. They are manufactured of ACLATHAN (92 Shore A) in rectangular shape. The high cutting and wear resistance of the material as well as the possibility to use all four sides result in a long service life.



As “combined cutting bars”

we manufacture parts in the material combinations ACLATHAN 2700 (92 Shore A) and the softer ACLATHAN 1800-S-40/I (65 Shore A). The main advantage of this type is the improved treatment of the knives (longer service life!).

Combined damping bars

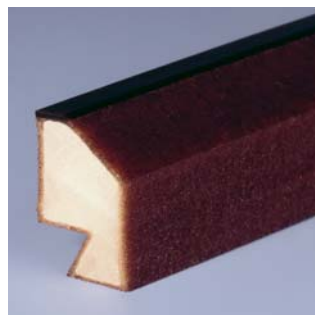
are also offered by ACLA-WERKE in different material types (different combinations of ACLATHAN and ACLACELL) and dimensions.



Used as damping elements ACLA damping bars achieve an important noise reduction with the impact of paper sheets. Furthermore the paper is treated in a careful way. Rebound effects of paper sheets are reduced to a minimum.

Knife cushions

are used in rotary printing presses as cutting knife and folding knife guidance. Depending on machine type and use ACLA-WERKE offer knife cushions



of ACLACELL or combined bars of ACLATHAN with homogeneous skin of the polyurethane elastomer ACLAN (ca. 70 Shore A).

The very long service life especially with the combined types, excellent permanent deformation values and easy handling on mounting and demounting make ACLA-knife cushions indispensable in the printing industry.

AP-Longlife Suction cups

for paper transport, for example in sorting machines and stitchers as well as book-bindings, are manufactured of the extremely wear and tear resistant material ACLATHAN on NDI basis. The extraordinary abrasion resistance of this material also against abrasive paper types results in extremely long service life of the suction cups. Marking of the parts to be transported is avoided.

Rollers/Rings

of ACLATHAN are used in printing and printing-processing machines mainly as tension rollers, tugging rollers and tugging rings. Various other applications are possible. Besides the high wear and tear resistance of the roller coating the especially silent running is advantageous for the use in the printing industry. As specialist for rollers and wheels of high-grade polyurethane elastomers ACLA-WERKE offer a comprehensive roller program. Different executions and sizes as well as a special manufacture as per drawing or sample are possible.



Contence ACLA moulded parts for the Printing Industry

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Cylinder Coatings

of ACLACELL or ACLATHAN are in application for transport cylinders in flexo-printing industry (or other industries). Due to the very high friction resistance and wear and tear resistance these cylinder coatings (stripes) offer a long life span and reliability.



Cutting Bars of ACLATHAN®



High-grade polyurethane elastomers with outstanding service life

The cutting bars used as underlayers for knife beams are manufactured of highly wear and tear resistant polyurethane elastomers which have been especially developed for the printing industry. Thanks to the extraordinary cutting resistance of the ACLATHAN qualities used an extremely long life span is achieved.

Any dimensions deliverable

Besides the dimensions shown in the tables also other profiles or executions with any edge or profile length can be manufactured.

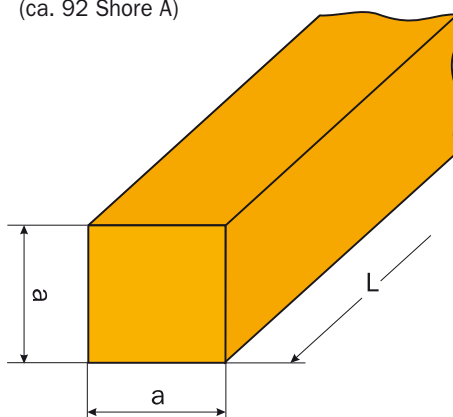
Flat and square bars

Flat and square bars of ACLATHAN 2700 (ca. 92 Shore A) are deliverable in profile sections from 6 to 12 mm and up to a maximum length of 3.000 mm.

Nominal sizes

Cutting bar of ACLATHAN 2700

(ca. 92 Shore A)



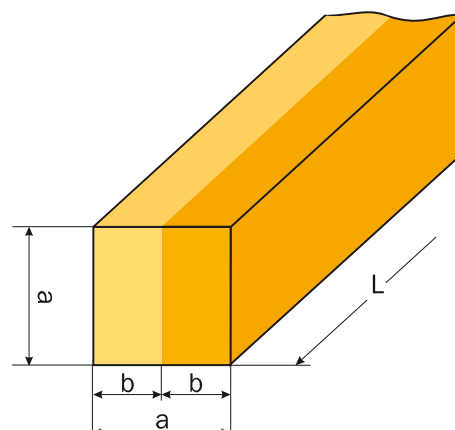
Standard dimensions [mm]
for cutting bars

a	max. L
10	600
12	600
12,7	600
15	700
16	600
18	600
19	600
20	600
22	600
30	600

Tolerance: + 0,2 mm for profile section

Combined cutting bar of ACLATHAN 2700/1800-S-40/I

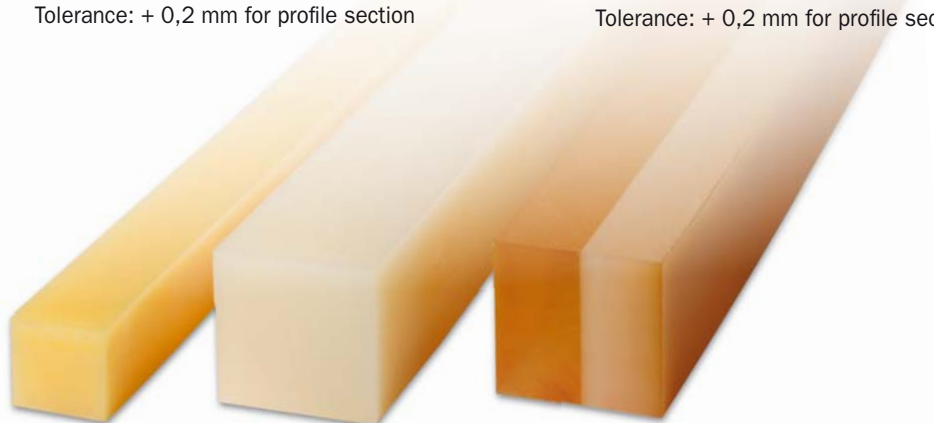
(ca. 92 Shore A/65 Shore A)



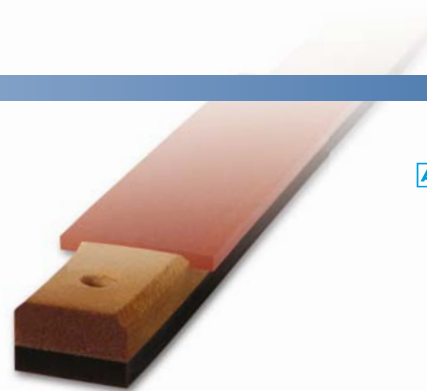
Standard dimensions [mm]
for combined cutting bars

a	b	max. L
20	10	600

Tolerance: + 0,2 mm for profile section



Combined Damping Bars of ACLATHAN® and ACLACELL®



Optimum properties on account of material combinations

The bars used for the damping of sheets are manufactured in different polyurethane materials to optimize the properties.

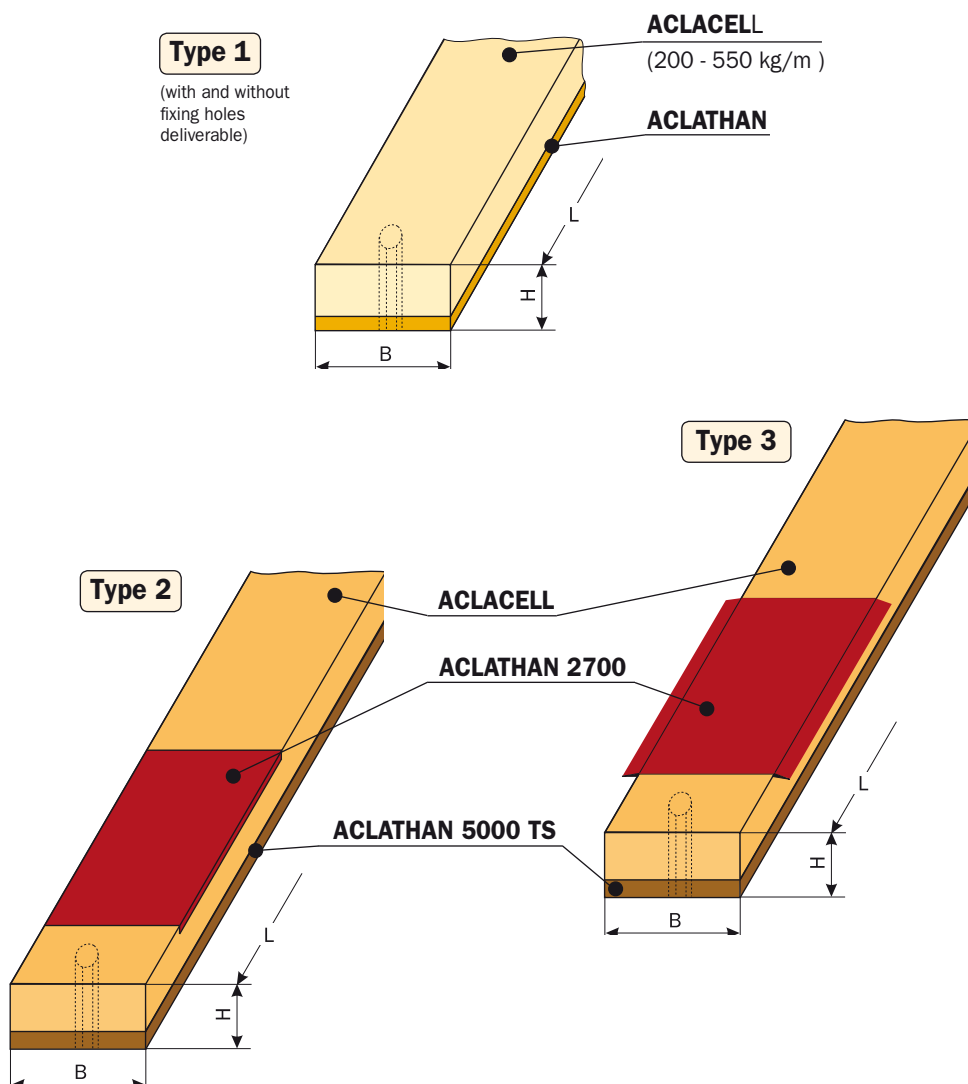
Besides the extremely wear and tear resistant ACLATHAN as support material, cellular polyurethane called ACLACELL is used as damping element which can be highly dynamically loaded. The advantages are:

- Important noise reduction
- Gentle treatment of the paper
- Reduced rebound effect of paper sheets

Numerous types and dimensions are deliverable

The manufacturing program of ACLA-WERKE GMBH comprises more than 70 damping bars. For the different machine types suitable executions can be supplied.

Diagrammatic sketch



In case of enquiries or orders please indicate type of bar, the basic sizes (length, width, height) and machine type.

Knife Cushions of ACLACELL® and ACLAN®

For the guidance of cutting and folding knife cushions are available as

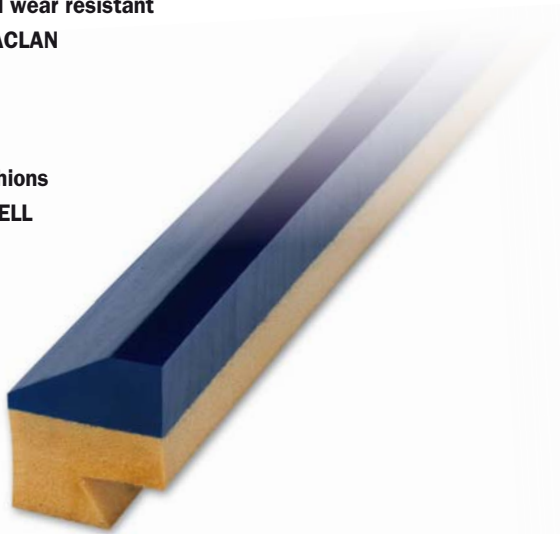
With the articles shown the max. lengths are indicated.

- Combined knife cushions of ACLACELL 2450 with reinforced wear resistant cover of ACLAN

Other cushion executions and sizes are deliverable on request.

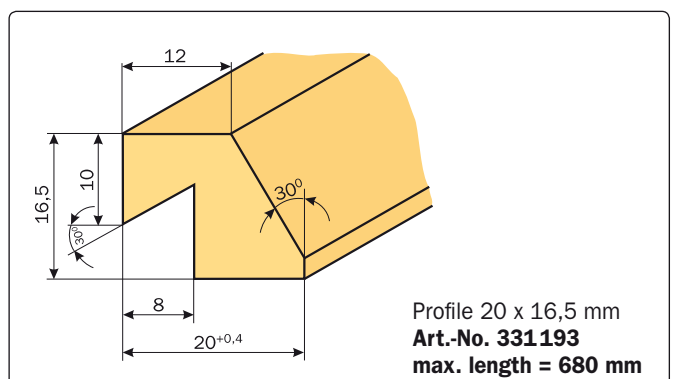
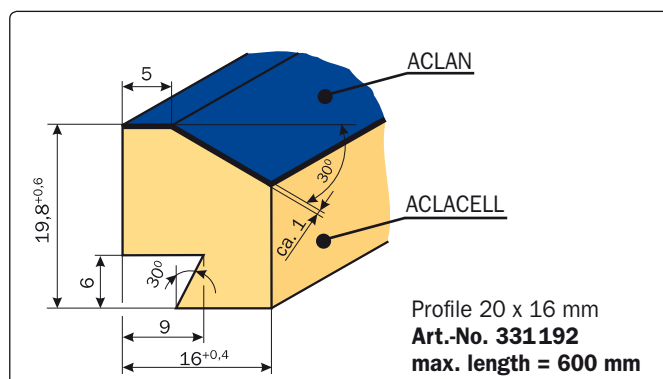
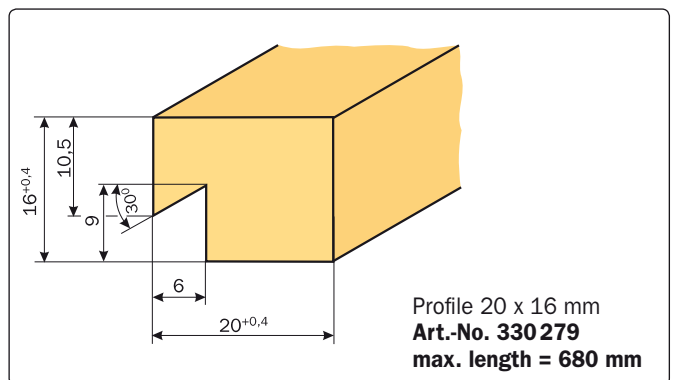
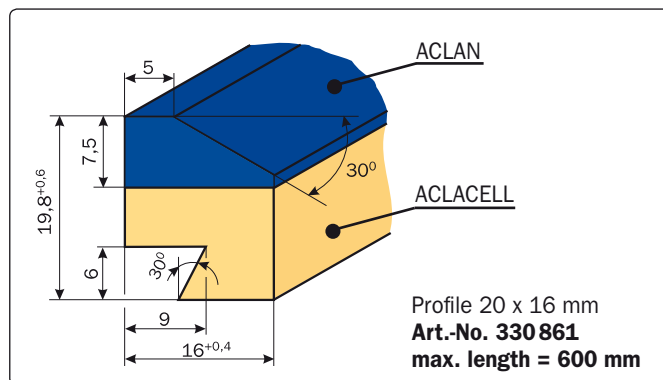
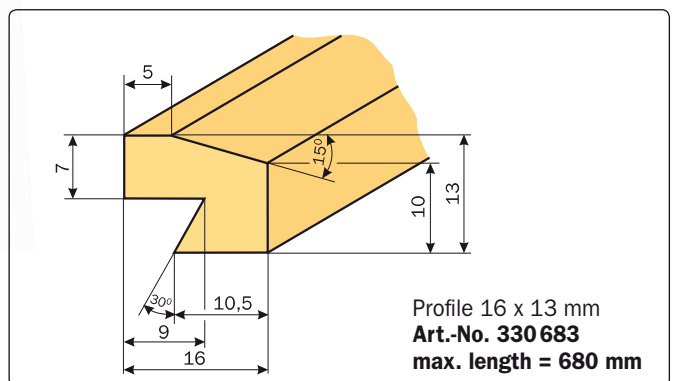
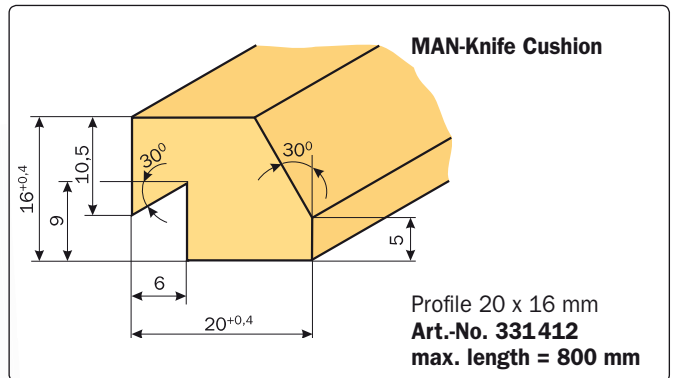
and

- Knife cushions of ACLACELL



**Combined knife cushions
of ACLACELL 2450/ACLAN**

Knife cushions of ACLACELL 2450

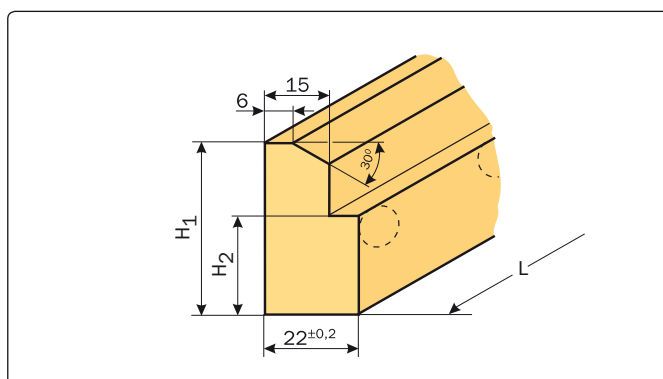
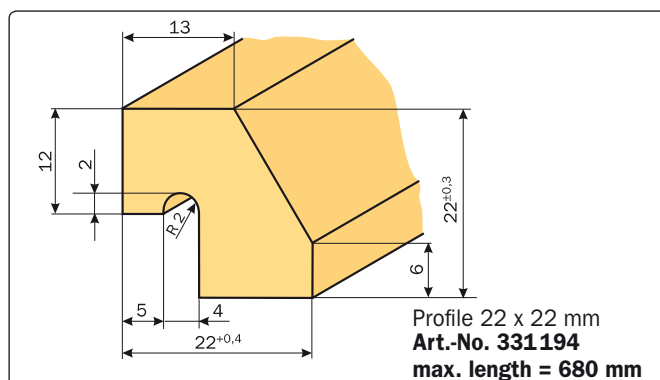
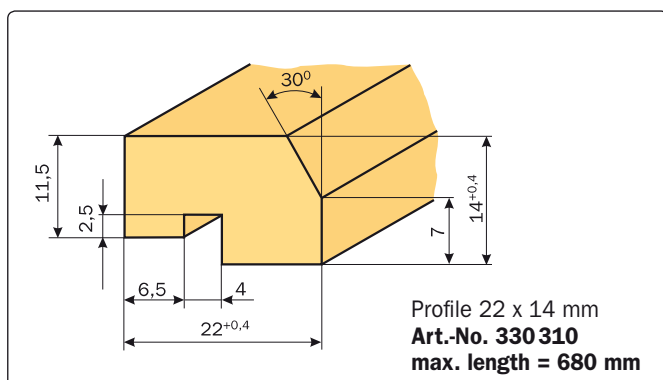
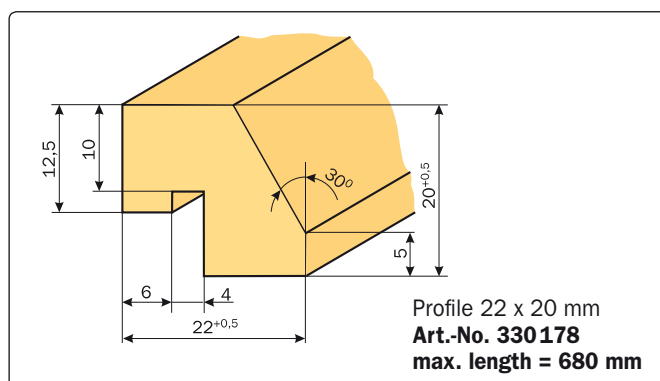
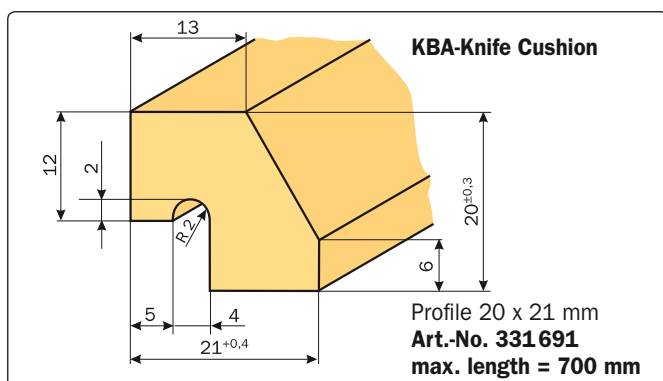
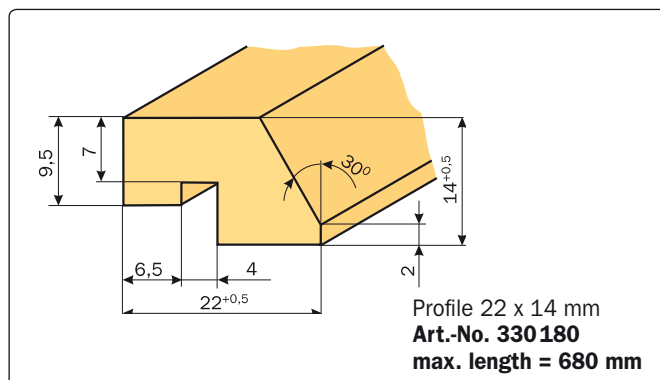
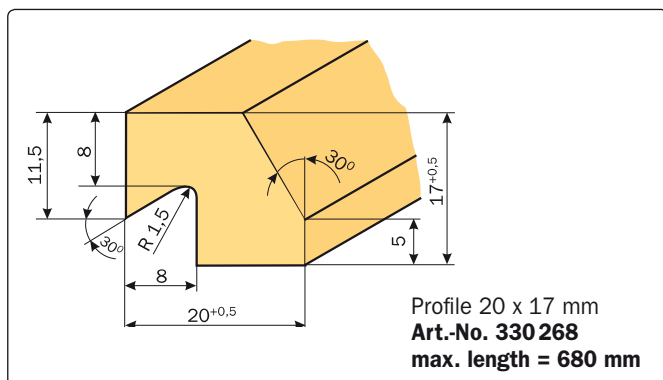


Dimensions in mm. We reserve the right to change sizes. Further dimensions and special types on request.

Knife Cushions of ACLACELL®



Knife cushions of ACLACELL 2450



KBA-Knife Cushion

Art.-No.	Type	Nominal article sizes		
		H ₁	H ₂	L
310 490	Profile 40 x 22 mm	40	23	480
310 727	Profile 47,5 x 22 mm	47,5	25,5	480
310 728	Profile 47,5 x 22 mm	47,5	25,5	552

AP-Longlife Suction Cups of ACLATHAN®



high grade
PUR quality
on NDI-basis

Extremely wear and tear resistant polyurethane quality

The suction cups used in the printing industry are manufactured of the highly wear and tear resistant polyurethane elastomer ACLATHAN on NDI basis.



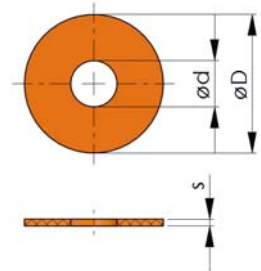
Besides the extraordinarily long service life and high economy of the ACLATHAN suction cups the gentle treatment of the parts to be transported is another advantage which pays off in practical use.

The excellent properties of AP-Longlife Suction Cups

- wide range of application with an elastic range approx. 65 - 96 Shore A
- high tear propagation strength
- high elasticity
- extremely high wear and tear resistance
- enormous grip
- non chalking
- good mineral-oil and ozone resistance
- temperature resistance from -40° C to +80° C (from -40° F to +176° F)

Disc-Type Suckers of ACLATHAN

AP Longlife Disc-Types Suction Cups of ACLATHAN are punched out from sheet material. The lip profile has got a uniform thickness. The shape of the sucker is determined by the surrounding components.



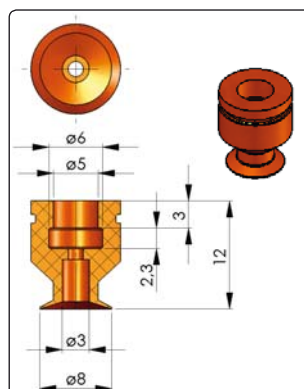
Nominal article sizes				
Ø D	Ø d	s		
25	4	0,7	or	1
28	12	0,7	or	1
30	4	0,7	or	1
30	8	0,7	or	1
30	13	0,7	or	1
30	14	0,7	or	1
30	15	0,7	or	1
32	8	0,7	or	1
32	13	0,7	or	1
32	14	0,7	or	1
32	15	0,7	or	1
35	8	0,7	or	1
35	13	0,7	or	1
35	14	0,7	or	1
35	15	0,7	or	1
38	13	0,7	or	1
38	15	0,7	or	1
40	13	0,7	or	1
40	15	0,7	or	1
45	13	0,7	or	1
45	15	0,7	or	1

Thickness tolerance: ± 0,1 mm



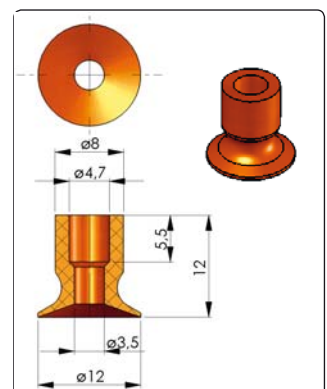
In addition to the executions and dimensions shown hereunder in this prospectus, various other suction cups are available (pls. ask for our technical data sheet 310 E).

Flat Suction Cups & Bellows-type Suction Cups



Flat suction cup/round
Art-No. 371 012

max. lifting power:
1,5 N (-0,5 bar)/2 N (-0,7 bar)
max. compressed: **11,5 mm**



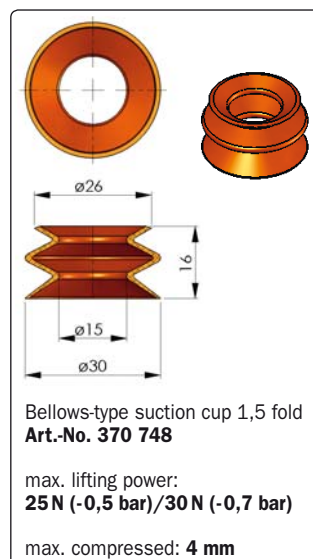
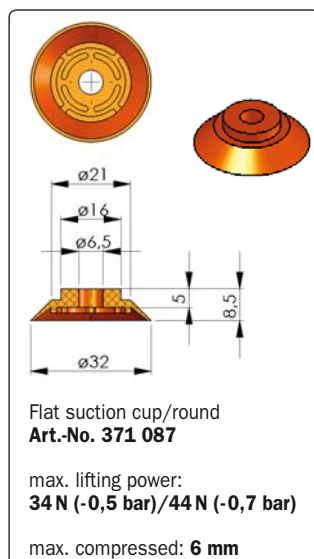
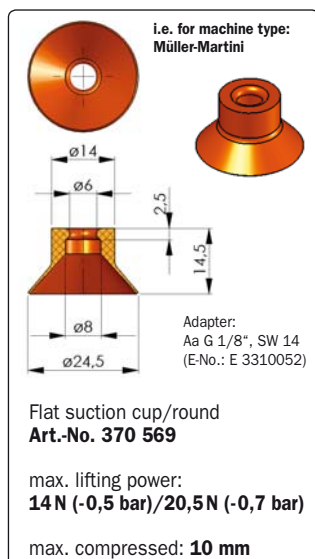
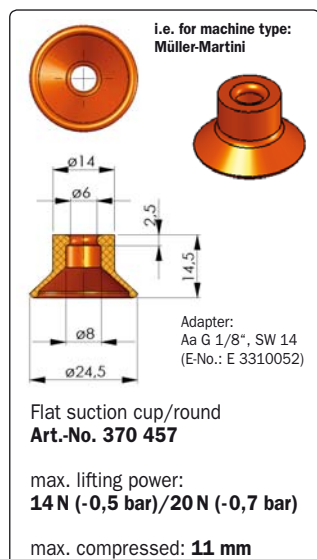
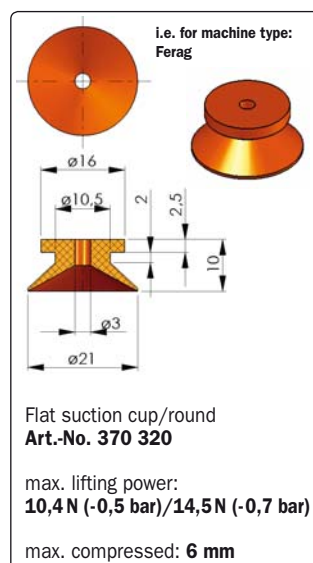
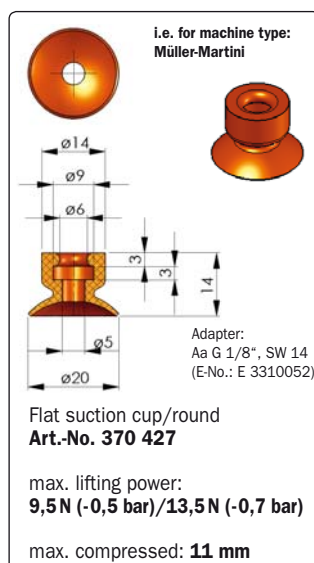
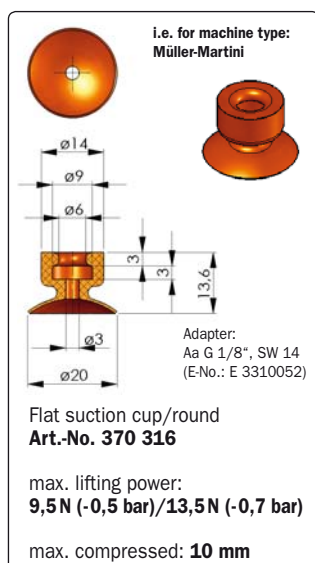
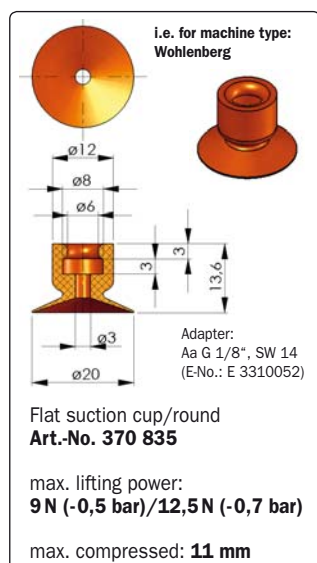
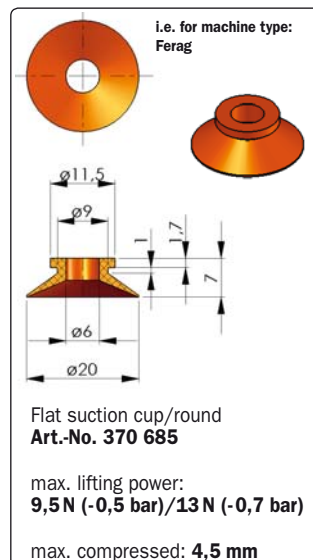
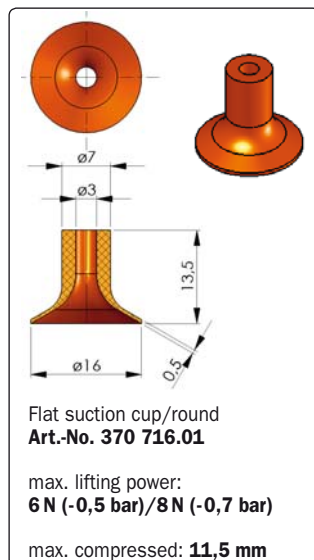
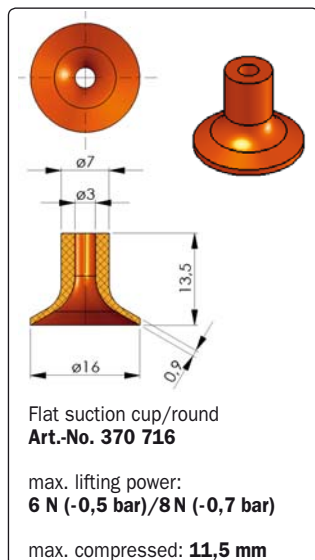
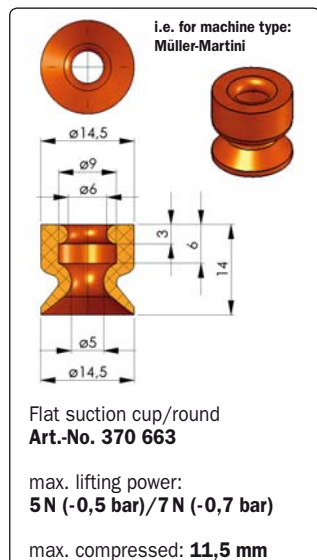
Flat suction cup/round
Art-No. 371 016

max. lifting power:
3 N (-0,5 bar)/4,5 N (-0,7 bar)
max. compressed: **10,5 mm**

AP-Longlife Suction Cups of ACLATHAN®



high grade
PUR quality
on NDI-basis



Tension Rollers/Rollers/Tugging Rollers of ACLATHAN®



Only the right compound generates the most performing roller

As manufacturers and PUR-specialists ACLA-WERKE have got the necessary know-how for the development of compounds and processing technique which is highly important when applying polyurethane elastomers as cover of rollers. This enables ACLA-WERKE to exceed your expectations concerning application properties such as load rates, elasticity, abrasion resistance, traction or concentricity.

Rollers of ACLATHAN are in preferred use with the printing industry and printing processing industry as tension rollers and tugging rollers. There are various other possible applications.

ACLATHAN®



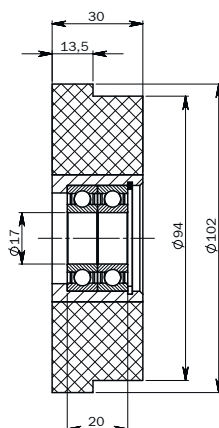
Short description

High grade polyurethane elastomer on NDI-basis/ Desmodur 15 ("The Classical among the PUR-elastomers") in hardnesses ranging from ca. 75 – 95 Shore A

Important properties:

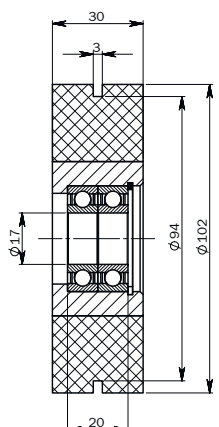
- very high dynamical load bearing capacity
- extremely wear and tear resistant
- no chalking
- extremely smooth run
- low rolling friction
- high tear propagation strength
- low compression set
- temperature resistance from -40°C to +80°C (from -40°F to +176°F), short intervals +130°C (+266°F)
- good mineral oil, grease, fuel and ozone resistance

Tension roller



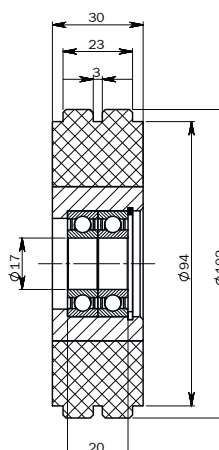
Art.-No.	Material tyre	core	bearing
142 739	ACLATHAN 3000	steel	6003-ZZ

Tension roller



Art.-No.	Material tyre	core	bearing
142 740	ACLATHAN 3000	steel	6003-ZZ

Tension roller



Art.-No.	Material tyre	core	bearing
142 418	ACLATHAN 2700	steel	6003-2RS
142 418.01	ACLATHAN 2700	steel	6003-ZZ

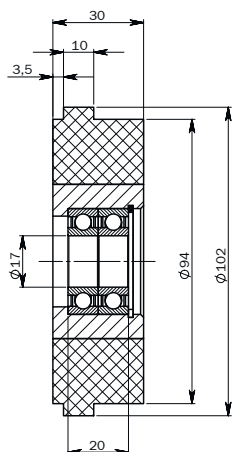


For ACLA-WERKE's further broad article program for rollers, wheels and tyres please ask for Dimension list/Technical sheets 226 D and 332 D.

Tension Rollers/Rollers/Tugging Rollers of ACLATHAN®

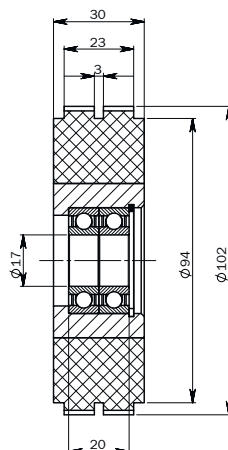


Tension roller



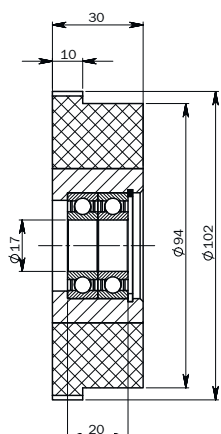
Art.-No.	Material tyre	core	bearing
142 419	ACLATHAN 3000	steel	6003-ZZ

Tension roller



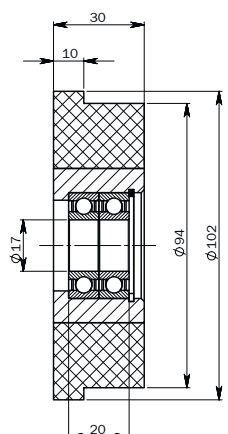
Art.-No.	Material tyre	core	bearing
142 505	ACLATHAN 3000	steel	6003-ZZ

Tension roller



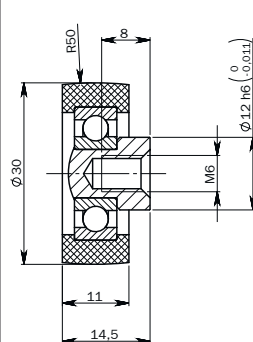
Art.-No.	Material tyre	core	bearing
142 506	ACLATHAN 3000	steel	6003-ZZ

Tension roller



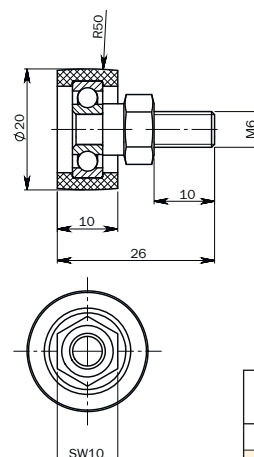
Art.-No.	Material tyre	core	bearing
142 507	ACLATHAN 3000	steel	6003-ZZ

Roller of ACLAMID



Art.-No.	Material tyre	bolt	bearing
80 333	ACLAMID	steel	608-2RS

Roller of ACLAMID



Art.-No.	Material tyre	bolt	bearing
80 332	ACLAMID	steel	625-ZZ

Tension Rollers/Rollers/Tugging Rollers of ACLATHAN®



Roller

Art.-No.	Material	
	tyre	core
197 542	ACLATHAN 2700	aluminium

Roller

Art.-No.	Material	
	tyre	core
197 543	ACLATHAN 2700	aluminium

Roller

Art.-No.	Material	
	tyre	core
197 544	ACLATHAN 2700	aluminium

Roller

Art.-No.	Material	
	tyre	core
197 577	ACLATHAN 2700	aluminium

Roller

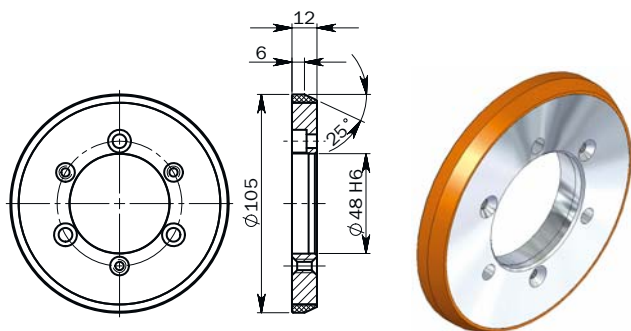
Art.-No.	Material	
	tyre	core
142 695.01	ACLATHAN 3000	steel

Dimensions in mm. We reserve the right to change sizes. Further dimensions and special types on request.

Tension Rollers/Rollers/Tugging Rollers of ACLATHAN®

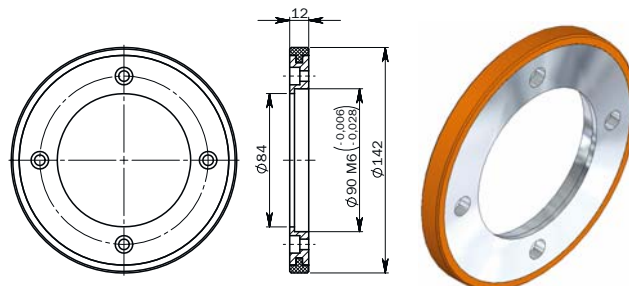


Tugging Roller



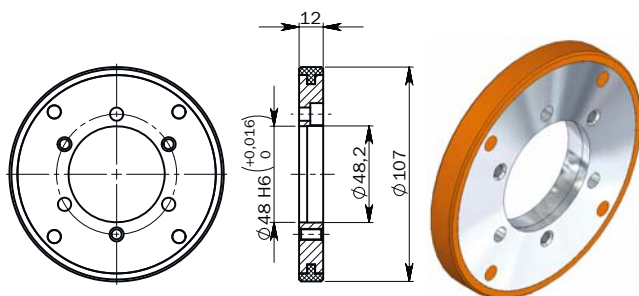
Art.-No.	Material	
	tyre	core
196 207.02	ACLATHAN 2700	steel

Tugging Roller



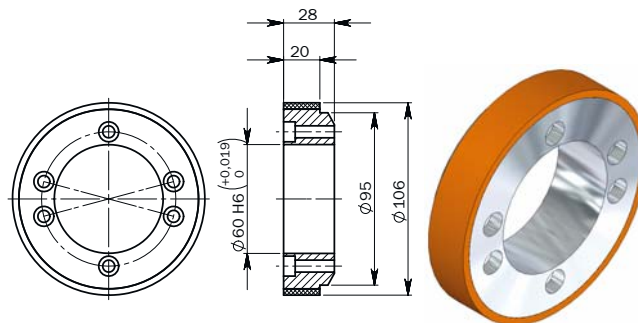
Art.-No.	Material	
	tyre	core
196 674	ACLATHAN 2700	steel

Tugging Roller



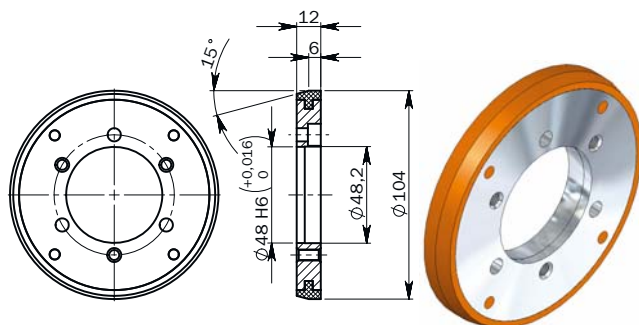
Art.-No.	Material	
	tyre	core
191 281	ACLATHAN 2700	steel

Tugging Roller



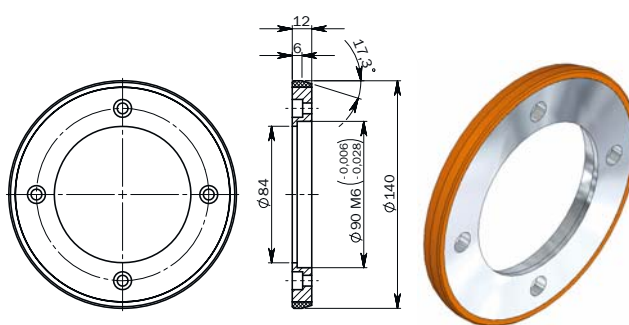
Art.-No.	Material	
	tyre	core
193 606	ACLATHAN 2700	steel

Tugging Roller



Art.-No.	Material	
	tyre	core
194 696	ACLATHAN 2700	steel

Tugging Roller



Art.-No.	Material	
	tyre	core
197 612	ACLATHAN 2700	steel

Tugging Rings of ACLATHAN®



Convincing material properties

Tugging rings of the high grade polyurethane elastomer ACLATHAN are distinguished by the following properties of application:

- Excellent wear and tear and abrasion resistance
- Silent running
- High elasticity
- Good resistance against inks and solvents

The tugging rings supplied to the printing and paper processing industry are manufactured of the polyurethane elastomer ACLATHAN/VULKOLLAN 65 – 93 Shore A.

Other materials and qualities, i.e. ACLACELL (a cellular PUR elastomer) are available on customer's request.

Multiple operational options

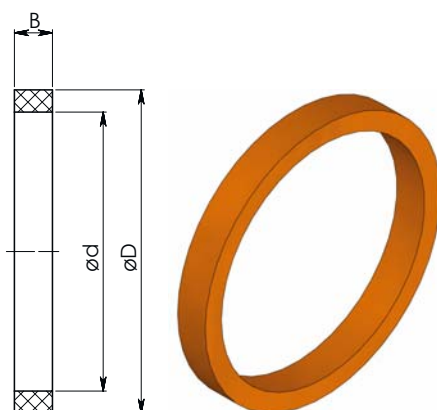
Tugging rings of ACLATHAN are in use in machines for the printing industry preferably as

- friction wheels
- tuggings rings
- brake rings
- feed rollers

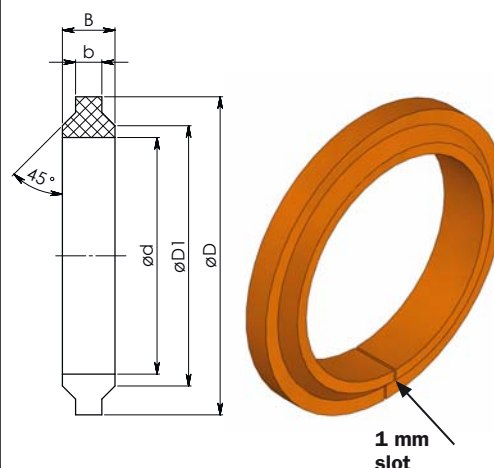
They perform greatly in the day-to-day use and have an outstanding life span.

Nominal article sizes

Tugging rings/Type 1 of ACLATHAN 2700
(ca. 92 Shore A)



Tugging rings with a step/Type 2 of ACLATHAN 2700
(ca. 92 Shore A)



Art.-No.	Ø D	Ø d	b
190 071	63 ^{+0,3}	59 ^{+0,3}	22 ^{-0,2}
194 629	88 ^{+0,3}	62 ^{+0,3}	15 ^{-0,2}
193 623	90 ^{+0,3}	61,5 ^{+0,3}	15 ^{-0,2}
194 123	92 ^{+0,3}	69,5 ^{+0,3}	15 ^{-0,2}
196 219	95,5 ^{+0,5}	79 ^{+0,3}	15 ^{-0,2}
192 663	102 ^{+0,3}	88 ^{+0,3}	15 ^{-0,2}
192 486	105 ^{+0,3}	78 ^{+0,3}	16 ^{-0,2}
193 774	105 ^{+0,3}	75 ^{+0,3}	15 ^{-0,2}
194 211	105 ^{+0,3}	78 ^{+0,3}	15 ^{-0,2}
192 508	108 ^{+0,3}	78 ^{+0,3}	15 ^{-0,2}
196 220	108,5 ^{+0,5}	79 ^{+0,3}	16 ^{-0,2}
193 622	111 ^{+0,3}	79 ^{+0,3}	15 ^{-0,2}
197 741	118,5 ^{+0,3}	97 ^{+0,3}	26 ^{+0,2}
195 090	125 ^{+0,3}	99 ^{+0,3}	30 ^{+0,2}
194 891	139 ^{+0,4}	119 ^{+0,1 -0,3}	8 ^{+0,2}
192 538	192,5 ^{+0,5}	140 ^{+0,4}	35 ^{+0,2}

Art.-No.	Ø D	Ø D1	Ø d	B	b
195 231	106,6 ^{+1,0}	85 ^{+1,0}	75 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}
195 379	108 ^{+1,0}	85 ^{+1,0}	75 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}
196 085*	108 ^{+1,0}	85 ^{+1,0}	75 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}
191 486	111 ^{+1,3}	85 ^{+1,0}	75 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}
197 034*	112 ^{+1,0}	84 ^{+1,0}	75 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}
191 776	117 ^{+1,3}	85 ^{+1,0}	75 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}
197 039	121 ^{+0,2}	99 ^{+1,0}	90 ^{+1,0}	20 ^{+0,5}	10 ^{+0,6}

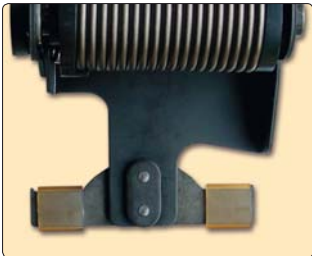
*without slot

Special moulded articles and semi-finished parts for printing industry, squeegees for screen printing

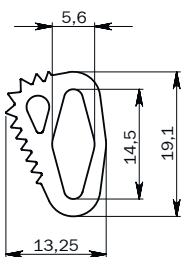
high grade
PUR quality
on NDI-basis

Transport clamps of ACLATHAN® AP

Transport clamps are mounted to newspaper transportation systems in the periphery of rotational printing machines (i.e. Müller-Martini or Ferag). They are exposed to extreme stress levels.



The ACLA transport clamps are made exclusively of ACLATHAN AP which is a highly wear and tear resistant and abrasion resistant material. It is a polyurethane elastomer on a VULKOLLAN basis. The newspaper clamps (equipped with ACLATHAN AP transport clamps) are mainly used in Müller-Martini and Ferag units. In comparison to rubber clamps ACLATHAN AP clamps reach a multiple life span, which is highly efficient and economical.



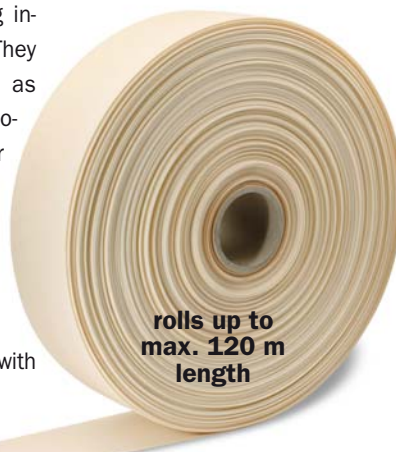
Art.-No. 371 088.6



Cylinder Coatings of ACLACELL® and ACLATHAN®

Cylinder coatings of ACLACELL or ACLATHAN are in application in various fields of printing industry or other industries. They can be used for example as transport cylinders for flexo-printing. Stripes of cellular or homogeneous (ACLACELL or ACLATHAN) material are provided "endless" on rolls. Customers can bond our stripes (from rolls) to specially prepared cylinders with a special adhesive agent.

ACLA cylinder coatings offer a long life span and reliability.



rolls up to
max. 120 m
length

Supply: endless on rolls up to max. 120 m

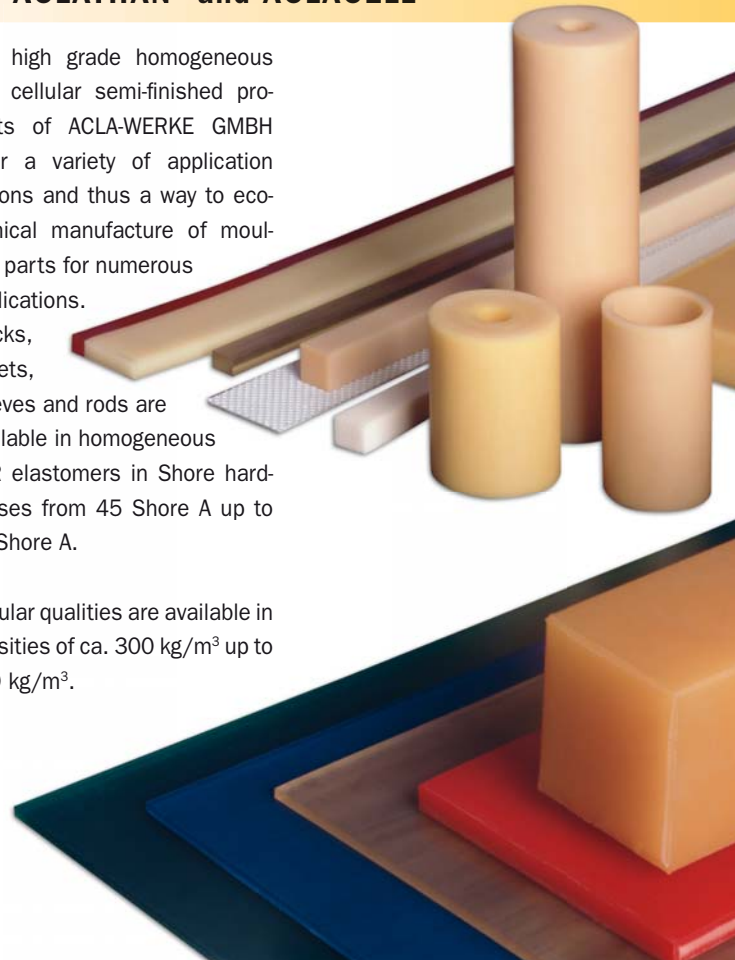
material	thickness	width
ACLACELL 2435 (350 kg/m³) / 2465 (650 kg/m³)	1 to 6 mm	up to 200 mm
ACLATHAN (various grades of Shore hardness are avail.)	upon request	upon request

Semi-finished materials of ACLATHAN® and ACLACELL®

The high grade homogeneous and cellular semi-finished products of ACLA-WERKE GMBH offer a variety of application options and thus a way to economical manufacture of moulded parts for numerous applications.

Blocks, sheets, sleeves and rods are available in homogeneous PUR elastomers in Shore hardnesses from 45 Shore A up to 96 Shore A.

Cellular qualities are available in densities of ca. 300 kg/m³ up to 650 kg/m³.

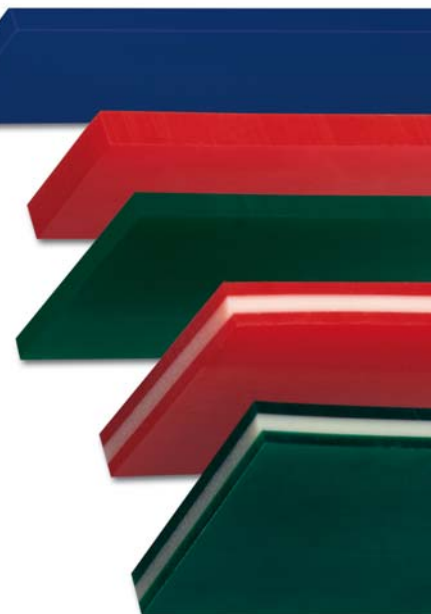


Squeegees/Combination Squeegees of ACLATHAN® and ACLATHAN® N

Squeegees of ACLA-WERKE GMBH are exclusively manufactured of high grade ACLATHAN qualities. Their advantageous product properties stand up to the high requirements of modern screen printing technique. The colour coding makes the identification of the material hardness easier:

red = ca. 65 Shore A
green = ca. 75 Shore A
blue = ca. 85 Shore A

ACLA squeegees are available in different profiles for various applications and lengths up to 3660 mm.



The ACLA Competence: A great variety in polyurethane for high-tech application

As one of the leading European manufacturers of technical parts made of polyurethane elastomers ACLA-WERKE GMBH offer suitable and economical solutions for various fields of application.

ACLA moulded articles of



are in successful application in various industrial branches on a worldwide scale.

Constant improvement of and investment in the development of compounds and industrial engineering are the basis for ACLA's success in the market.

**QUALITY
MANAGEMENT**
Certificate

Voluntary participation in regular
monitoring according to ISO 9001:2000



50 years of experience in manufacturing and processing of high grade polyurethane elastomers and a highly efficient quality control system safeguard ACLA-WERKE GMBH's quality standard on the highest level.

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Our verbal or written recommendations for any application as well as tests are carried out to the best of our knowledge. They are without engagement also as far as patent rights of third parties are concerned, and do not exempt you from checking the products supplied by us to their suitability for the intended procedure and purpose. Application, use and processing of the products are outside our control, and are exclusively the responsibility of the customer. Moreover our general sales conditions apply.



For example rollers and wheels for transportation, material handling, packaging industry, textile machines, general engineering and municipal areas like sewage treatment etc.



For example suction cups and grippers in pneumatical handling and pick-and-place for big flat parts in the glass-, automotive- and wood-processing industry, for plastic and steel plate manufacturing as well as in the beverage industry etc.



For example seals and wiper rings for hydraulic and pneumatic industry, ball-and-socket joints, friction bearings, shaft seals for axial and radial applications etc.



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