

AM-EN

# **Engineered Timing Belts**



# Engineered Belts – creating a custom-made product

Ammeraal Beltech has an outstanding reputation for developing individual solutions for each separate belting application. We understand that your processes and equipment are unique to your business, and our engineers have the technical proficiency and industry experience to develop belts for even the most challenging operating conditions.

# Cleats

- Timing Belts customized with welded-on profile/cleats made from the same polyurethane as the body of the belt
- Integrated metal teeth to enable mechanical attachment of cleats
- Both simple upright and custommade complex-shape cleats available
- Welding
  - infrared welding
  - friction welding
  - contact heated tool welding
- High frequency

# からかのかんと

# **Endlessing**

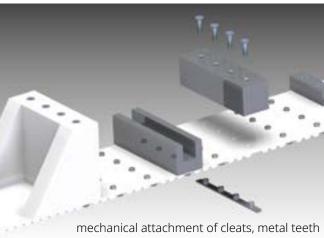
- Splicing
- · Welded joint
  - only done with open-end PU Linear types
  - finger joint, tapered fingers
  - no glues or adhesives
  - strength after welding at 50% of original maximum belt strength
- Fasteners
  - for specialized tasks
  - plastic lace fastener
  - pin-joint fastener
- quick installation on site
- Jointing tools
  - finger-punch
  - splice press
  - welding molds per belt pitch type
  - control unit
  - water-cooling unit
  - jointing on site also possible

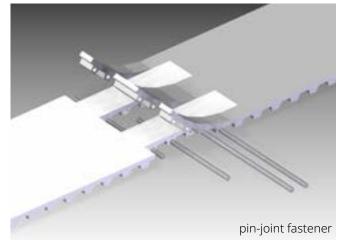
# **Ve-guides**

- Fabricated Ve-guides
  - for PU Linear, PU Torque and PU Molded belts
  - can be fit to any belt type in any width, length combination
  - can be glued on
  - can also be added onto the back side of the belt
  - special dimensions, colors and degrees of hardness available
  - special notched types available for extra flexibility
- Timing Belts with integrated Ve-guides
  - PU compound, hardness and color that match the body of the belt











# Machining

- Grooves for Ve-guides and for vacuum belts
- Holes created by water jet cutting, punching or drilling
- Grinding full surface or profiles, such as poly Ve-profile
- Cross slots and slits
- Machinery customized to your design
- Embossing of thermoplastic covers
- · Milling recessed slots



# Covers

Cover materials determine a belt's unique set of properties, such as friction, flexibility, wear resistance and oil and fat resistance. Ammeraal Beltech can apply an extra cover to almost any base belt, whether it be a standard belt, a high-performance flat belt or a timing belt. We offer an extensive range of cover materials, including rubbers, PVC, polyurethane, cellular materials and other special materials.

What's more, we can fit a cover to a base belt using any one of four processes:

# Bonding

with glue, warm or cold, relatively easy, one off, economic, not seamless

# Welding

with hot air, only thermoplastics, seamless if required

# Casting

vulcanizing truly endless rubber covers, resulting in a seamless cover

# Coating

knife coating for paste covers and for truly endless seamless covers









# Covering Materials: Rubber



# NRS 035 Yellow

Natural rubber, excellent grip with good abrasion resistance



# NRS 040 Red

Natural rubber, high-grip, good wear and abrasion resistance



# NRS 040 White FG

Natural rubber, high-grip, good wear and abrasion resistance, food quality



# NRS 040 Beige

Synthetic natural rubber, high-grip, excellent for profiling and grooving, high tear and abrasion resistance



# NRS 060 Red

Natural rubber, high wear and abrasion resistance, good cut and tear resistance



# NRS 070 Purple

Natural rubber, excellent wear and abrasion resistance, high21 cut and tear resistance



# NTS 065 White FG

Nitrile rubber, oil and fat resistant synthetic rubber, food quality



# NTS 060 Black

Nitrile rubber, very good wear and abrasion resistance under high temperatures, oil and fat resistance



# NTS 070 Green

Nitrile rubber, oil and fat resistant, good grip, light fabric texture surface, good wear and abrasion resistance



# CXS 065 C37 Blue

Nitrile rubber, high wear and abrasion resistant, oil and fat resistance, C37 supergrip profile



# SRS 040 C37 Tan

Synthetic rubber, high wear and abrasion resistance, sensitive grip, C37 supergrip profile



# SRS 040 N19 White

Synthetic rubber, good wear and abrasion resistance, good grip, N19 nipple profile

# Rubber

Rubbei										
Туре	Material	Hardness [ ° ShA ]	Density [pound/ ft³]	Color	Max. Contact temperature [°C/F]	Oil and fat resistance	Static coeff. of friction to steel	Food Grade	Pulley factor	Standard thickness [ mm ]
NRS 035 yellow	natural rubber	35	61.8	yellow	65/149	low	1.2	no	13	3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30
NRS 040 red	natural rubber	40	61.2	red	70/158	low	1.0	no	15	1.6, 2.4, 3.2, 5, 6, 8, 10, 12, 15
NRS 040 white FG	natural rubber	40	62.4	white	70/158	limited	1.0	yes	15	2, 3, 5, 6, 8, 10
NRS 040 beige	synthetic rubber	40	62.4	beige	70/158	low	1.1	no	15	4, 6, 8, 10, 12, 15
NRS 060 red	natural rubber	60	68.7	red	75/167	low	0.9	no	17	3, 5, 6, 8, 10, 12, 20, 25
NRS 070 purple	natural rubber blend	70	70.5	purple	75/167	limited	0.6	no	20	3, 4, 5, 6, 8, 10, 12, 15, 20, 25
NTS 065 white FG	nitrile rubber	65	81.2	white	80/176	good	0.8	yes	18	5, 10
NTS 060 black	nitrile rubber	60	81.2	black	110/230	good	0.7	no	18	4, 6, 8, 10, 12
NTS 070 green	nitrile rubber	70	74.9	green	100/212	good	0.7	no	25	1, 2
CXS 065 C37 blue	nitrile rubber	65	46.8	blue	120/248	excellent	0.9	no	20	4.3
SRS 040 C37 tan	synthetic rubber	40	49.9	tan	80/176	limited	1.0	no	15	4.3
NTS 050 C37 red	nitrile rubber	50	74.9	red	120/248	excellent	0.7	no	20	4.3
SRS 040 N19 white	synthetic rubber	40	106.0	white	80/176	limited	na	no	20	2

# Covering Materials: PU & PVC



# PUS 060 Blue/Black

Polyurethane, high-grip, flexible, very tough, embossing possible



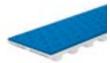
# **PUS 080 Transparent**

Polyurethane, high-grip, high abrasion resistance, cut and tear resistance, embossing possible



# **PUS 085 Blue AM FG**

Polyurethane, good abrasion resistance, excellent oil and fat resistance, AntiMicrobial, food quality



# PUS 085 A16 Blue AM FG

Polyurethane, good abrasion resistance, excellent oil and fat resistance, AntiMicrobial, A16 profile



# PUS 085 A5 Blue FG

Polyurethane, good abrasion resistance, excellent oil and fat resistance, A5 nipple profile



# PUS 092 White

Polyurethane, excellent abrasion resistance, good oil and fat resistance



# PUS 080/BS White

Polyurethane, excellent cut and wear resistant, good oil and chemical resistance



# PVS 030 P6 Green/Blue

PVC, good chemical resistance, high-grip, P6 supergrip profile



# PVS 030 P7 Blue

PVC, good chemical resistance, high-grip, P7 minigrip profile



# PVS 035 Blue

PVC, high-grip, limited oil and grease resistance, embossing possible



# PVS 065 A24 White FG

PVC, good oil and grease resistance, good chemical resistance, herringbone profile



# PVS 065 A13 White

PVC, good oil and grease resistance, good chemical resistance, sawtooth profile

# PU & PVC

TO GIVE										
Туре	Material	Hardness [ ° ShA ]	Density [pound/ ft³]	Color	Max. Contact temperature [°C/F]	Oil and fat resistance	Static coeff. of friction to steel	Food Grade	Pulley factor	Standard thickness [ mm ]
PUS 060 blue/black	Polyurethane	60	71,8	blue, black	80/176	good	0.9	no	25	2.5
PUS 080 transparent	Polyurethane	80	69,3	transp.	80/176	good	0.8	no	30	1, 2, 3, 4
PUS 085 blue AM FG	TPU Ropanyl	85	76,8	blue	80/176	excellent	0.6	yes	30	1.5
PUS 085 A16 blue AM FG	TPU Ropanyl	85	53,7	blue	80/176	excellent	na	yes	20	2.5
PUS 085 A5 blue FG	TPU Ropanyl	85	59,3	blue	80/176	excellent	na	yes	15	3.5
PUS 092 white	Polyurethane	92	81,2	white	80/176	excellent	0.6	no	30	2, 3
PUS 080/BS white	PU Ropan BS	80	62,4	white	80/176	good	0.4	no	25	2, 3, 4
PVS 030 P6 green/blue	PVC Flexam	30	48,7	blue, green	90/194	limited	0.9	no	15	4
PVS 030 P7 blue	PVC Flexam	30	49,9	blue	90/194	limited	0.9	no	15	4
PVS 035 blue	PVC Flexam	35	86,8	blue	90/194	limited	1.1	no	20	1, 2, 3
PVS 065 A24 white FG	PVC Nonex	65	41,2	white	90/194	good	na	yes	18	4
PVS 065 FG blue/white	PVC Nonex	65	83,0	blue, white	90/194	good	0.7	yes	25	2, 3, 4
PVS 065 blue AM FG	PVC Nonex	65	83,0	blue	90/194	good	0.7	yes	25	1.5
PVC 065 P13 white	PVC Nonex	65	46,8	white	90/194	good	na	yes	18	4

# Covering Materials: Cellular



# NRS 160 Grey/Orange

Natural rubber, open cellular construction, high resilience, high elasticity and porosity, compressible



# NRS 200 Black

Natural rubber, open cellular construction, high-grip, high resilience, high elasticity and porosity, compressible



# NRS 250 Orange

Natural rubber, open cellular construction, non-marking, high resilience, high elasticity and porosity



# NRS 270 Green

Natural rubber, open cellular construction, high-grip, non-marking, high resilience



# **NES 290 Black**

Neoprene rubber, closed cellular construction, very high-grip, good oil and chemical resistance



# FBS 160 Blue

Closed cellular neoprene rubber covered by premium stretch fabric, low friction surface



# PUS 220 Blue

Polyurethane, low density partially closed cellular construction, good oil and fat resistance



# PUS 300 Green

Polyurethane, medium density partially closed cellular construction, good abrasion resistance



# **PUS 400 Brown**

Polyurethane, high density partially closed cellular construction, good abrasion resistance



# PUS 400 Beige

Polyurethane, high density closed cellular construction, excellent wear resistance



# **PUS 600 Yellow**

Polyurethane, very high density fully closed cellular construction, good wear and abrasion resistance

# Cellular

Туре	Material	Hardness [ ° ShA ]	Density [pound/ ft³]	Color	Max. Contact temperature [°C/F]	Oil and fat resistance	Static coeff. of friction to steel	Food Grade	Pulley factor	Standard thickness [ mm ]
NRS 160 grey/orange	natural rubber, open cellular	-	9.99	orange, grey	65/149	low	1.0	no	6	5, 10, 15, 20, 25, 30
NRS 200 black	natural rubber, open cellular	-	12.5	black	65/149	low	1.0	no	6	3, 5, 8, 10,15,
NRS 250 orange	natural rubber, open cellular	-	15.6	orange	65/149	low	1.0	no	8	5, 10, 15, 20, 25, 30
NRS 270 green	natural rubber, open cellular	-	16.9	green	65/149	low	1.0	no	8	5, 10, 15
NES 290 black	neoprene rubber, closed cellular	-	18.1	black	85/185	good	1.3	no	10	5.5, 7, 10.5, 13, 30
FBS 160 blue	fabric covered cellular neoprene	-	9.99	blue	70/158	good	0.3	no	15	3, 6
PUS 220 blue	cellular polyurethane	-	13.7	blue	70/158	good	0.5	no	12	5, 7, 11, 12, 14, 25
PUS 300 green	cellular polyurethane	-	18.7	green	70/158	good	0.5	no	14	4, 5, 7, 10, 11, 12, 14, 25
PUS 400 brown	cellular polyurethane	-	25.0	brown	70/158	good	0.5	no	15	3, 5, 11, 12, 14, 25
PUS 400 beige	cellular polyurethane	-	25.0	beige	80/176	good	0.3	no	16	1, 2, 3, 4, 5, 6
PUS 600 yellow	micro cellular polyurethane	50	37.5	yellow	70/158	excellent	0.4	no	20	2, 3, 4, 5, 6, 8, 10

# Covering Materials: Special



# PRS 060 Blue/Red

Technopolymer, high-grip, good abrasion resistance, light embossing possible, siliconfree, good flexibility at low temperatures



# CLS 925 Grey

Chrome leather, high abrasion resistance, medium grip, good for oily and greasy circumstances



# NPS 055 Brown/White

Needle punched polyester fabric, low grip, high abrasion and wear resistance



# PES 999 Grey

Needle punched polyester fabric impregnated, low grip, high abrassion resistance



# PAS 778 Green

Low friction and low noise nylon fabric, excellent wear resistance, good oil and chemical resistance



# PLS 035 Red

Pletex poly blend, high-grip, limited oil and grease resistance, embossing possible



# **AMS 090 A16 Ivory**

Polyester, good abrasion resistance, excellent oil and fat resistance, A16 nipple profile



# IS 060 Blue

Silicone rubber, good wear and abrasion resistance, self-releasing



# SIS 040 Light Blue FG/White

Silam silicone rubber, excellent tear strength, high-grip, self-releasing surface, food quality



# ELS 060 Green

Technopolymer,high-grip, good oil and fat resistance, excellent abrasion and tear resistance



# KFS 999 Yellow\*)

Aramid felt, heat resistant, good abrasion resistance, good oil and fat resistance

# Special

Туре	Material	Hardness [ ° ShA ]	Density [pound/ ft³]	Color	Max. Contact temperature [°C/F]	Oil and fat resistance	Static coeff. of friction to steel	Food Grade	Pulley factor	Standard thickness [ mm ]
PRS 060 blue/red	thermoplastic technopolymer	60	64.3	blue, red	80/176	good	0.9	no	25	2.3
CLS 925 grey	chrome leather	-	58.1	grey	80/176	excellent	0.8	no	30	3
NPS 055 brown/white	needle punched polyester fabric	-	35.0	brown, white	80/176	good	0.3	no	25	2.5 (white: 2)
PES 999 grey	polyester fabric	-	87.4	grey	80/176	good	0.3	no	25	2.0
PAS 778 green	nylon fabric	-	13.7	green	80/176	good	0.3	no	-	0.5
PLS 035 red	Pletex poly blend	35	86.5	red	90/194	limited	0.9	no	20	2, 3, 4
AMS 090 A16 ivory	Amtel polyester	90	28.1	ivory	100/212	excellent	na	yes	30	2.5
SIS 060 blue	silicone rubber	60	99.9	blue	220/428	good	0.6	no	17	3.2, 5.0, 7.0
SIS 040 l bl. FG, white	silicone rubber Silam	40	69.9	blue, white	250/482	excellent	1.3	yes	15	1-10
ELS 060 green	Elastonyl technopolymer	60	66.2	green	80/176	good	0.9	no	25	2.4
KFS 999 yellow*)	Aramid felt	-	20.0	yellow	480/896	good	0.3	no	na	10

<sup>\*)</sup> also available PBO felt +600°C/1112°F, Nomex felt + 280°C/536°F, Polyester felt +180°C/356°F

# A solution for every application

Engineered Belts can be found performing a wide variety of tasks in many different industries. Each belt is specialized to meet specific needs.

# Feeder belts

Many folder gluer machines in the Corrugated Industry have feeder belts from Ammeraal Beltech to feed the corrugated box dies. Our Ultrafeed 500 cover, with its exceptional friction and wear resistance, gives our feeder belts excellent performance and a long service life. In addition, our food-approved belt covers meet FDA/EC regulations.

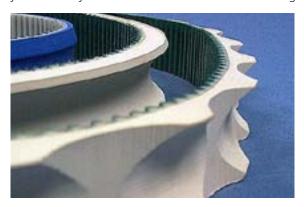


# **Product benefits:**

- Consistent feeding of the corrugated box dies to improve productivity and yield
- Non-marking covers to help reduce waste and scrap
- Reduced maintenance costs due to long service life
- FDA/EC approved feeder belt covers that meet government and customer demands for Food Safety

# Sausage belts

In the Meat Industry, Food Safety is key. With our blue food-approved AntiMicrobial sausage belt covers, you are ready to meet and exceed the most challenging Food Safety demands.



# **Product benefits:**

- Constant product feed due to the excellent soft grip of our Silam covers, even in cold, greasy circumstances
- Highly flexible cover ensuring maximum productivity and belt life, even at reduced ambient temperatures
- Reduced damage to the sausages due to gentle linking process and continuous transport
- AntiMicrobial properties to support your ISO 22000 requirements (previously HACCP), and sealed edges to protect belt reinforcement and eradicate possible product contamination

# Haul-off and cable-pulling belts

Haul-off and cable-pulling belts, designed to operate in pairs on caterpillars, are precision-made to exact specifications. The hardness, thickness and friction properties of the covers combine to deliver excellent pulling/clamping force ratio, and their special wear-resistance and low-aging qualities ensure a long service life.





# **Product benefits:**

- Equal thickness of belt pair over entire length for reliable uniformity of speed
- A wide range of covers offering different hardness and friction coefficients
- · Longitudinal profiles for better fit-grip
- Heat and chemical-resistant covers for particularly demanding applications
- Different base belts available, including Poly-V, flat belts and timing belts

# Top-compression and seam-compression belts for the Corrugated Industry

After folded boxes have been glued, top-compression and seam-compression belts hold them carefully in place during transport and drying. The weight of the belt holds the boxes down and the soft thick belt cover adapts to the shape of any folded box, large or small. What's more, our belts have been specially constructed from non-marking flexible materials to carefully compress boxes in order to preserve product quality.



# **Product benefits:**

- Belt adapts to the size and shape of your product for better compression
- Soft and compressible top cover to reduce product damage
- FDA compliant Food Grade top covers available
- Available with a truly endless top cover for improved belt performance

# **Belts for the Sanitary Paper Industry**

Belts for the Sanitary Paper Industry are designed to strict job specifications. Products such as diapers and sanitary pads are assembled with high precision on moving belts at speeds up to 400 meters per minute. These positive drive belts are key to the synchronous assembly lines used for these products. The high-friction covers, together with the vacuum that is applied, hold the product in place while it is assembled, cut, folded and packed.



# **Product benefits:**

- No product slip, thanks to vacuum feature and high friction covers, for maximum efficiency
- Excellent running properties at high speeds for greater productivity
- Precise product positioning for smoothest possible workflow
- Available with non-stick silicone cover

# **Pull-down Belts**

Vertical form-fill & seal (VFFS) bagging machines are widely used, particularly in the Food and Chemical Industries. Typical products that are packed using this equipment are sweets, cheese, coffee, deep-freeze products, chemicals, sand and soil, and small plastic products.

The function of the pull-down belts is to consistently move a plastic film (wrapped around a steel tube) downwards in a controlled start-stop movement. This is a demanding application and requires high-performance belts with friction covers that are both wear-resistant and tear-resistant. Our pull-down belts are ideal for this work, and they're all non-marking and machined specifically to fit the task they perform.



# Product benefits:

- · Constant and secure foil pull
- Non-marking belt covers to safeguard product quality
- · Wear resistant belt surface for a longer service life



# **Local Contacts**

# ... and 150 more service contact points at ammeraalbeltech.com

# Argentina

T +54 11 4218 2906 info-ar@ammeraalbeltech.com

### **Australia**

T +61 3 8780 6000 info-au@ammeraalbeltech.com

# Austria

T +43 171728 133 info-de@ammeraalbeltech.com

# **Belgium**

T +32 2 466 03 00 info-be@ammeraalbeltech.com

# Canada

T +1 905 890 1311 info-ca@ammeraalbeltech.com

# Chile

T +56 2 233 12900 info-cl@ammeraalbeltech.com

# China

T +86 512 8287 2709 info-cn@ammeraalbeltech.com

# Colombia

T +57 1 893 9890 info-co@ammeraalbeltech.com

# Czech Republic

T +420 567 117 211 info-cz@ammeraalbeltech.com

# Denmark

T + 45 7572 3100 info-dk@ammeraalbeltech.com

# Finland

T +358 207 911 400 info-fi@ammeraalbeltech.com

# France

T +33 3 20 90 36 00 info-fr@ammeraalbeltech.com

# Germany

T +49 4152 937-0 info-de@ammeraalbeltech.com

# Hungary

T +36 30 311 6099 info-hu@ammeraalbeltech.com

# India

T +91 44 265 34 244 info-in@ammeraalbeltech.com

# Israel

T +972 4 6371485 info-il@ammeraalbeltech.com

# Italy

T +39 051 660 60 06 info-it@ammeraalbeltech.com

# Japan

T +81 52 433 7400 info-jp@ammeraalbeltech.com

# Luxembourg

T +352 26 48 38 56 info-lu@ammeraalbeltech.com

# Malaysia

T +60 3 806 188 49 info-my@ammeraalbeltech.com

# Mexico

T +52 55 5341 8131 info-mx@ammeraalbeltech.com

# Netherlands

T +31 72 57 51212 info-nl@ammeraalbeltech.com

# Peru

T +51 1 713 0069 info-pe@ammeraalbeltech.com

# Poland

T +48 32 44 77 179 info-pl@ammeraalbeltech.com

# Portugal

T +351 22 947 94 40 info-pt@ammeraalbeltech.com

# Singapore

T +65 62739767 info-sq@ammeraalbeltech.com

# Slovakia

T +421 255648542 info-sk@ammeraalbeltech.com

# South Korea

T +82 31 448 3613-7 info-kr@ammeraalbeltech.com

# Snain

T+34 93 718 3054 info-es@ammeraalbeltech.com

# Sweden

T +46 (0) 10 130 96 00 info-se@ammeraalbeltech.com

# Switzerland

T +41 55 2253 535 info-ch@ammeraalbeltech.com

# Thailand

T +66 2 902 2604-13 info-th@ammeraalbeltech.com

# Turkey

T +90 232 877 0700 info-tr@ammeraalbeltech.com

# **United Kingdom**

T +44 1992 500550 info-uk@ammeraalbeltech.com

# **United States**

T +1 847 673 6720 info-us@ammeraalbeltech.com

# Vietnam

T +84 8 376 562 05 info-vn@ammeraalbeltech.com

# Expert advice and quality solutions for all your belting needs.













# **General contact information:**

# **Ammeraal Beltech**

P.O. Box 38 1700 AA Heerhugowaard The Netherlands

T +31 (0)72 575 1212 info@ammeraalbeltech.com

ammega.com