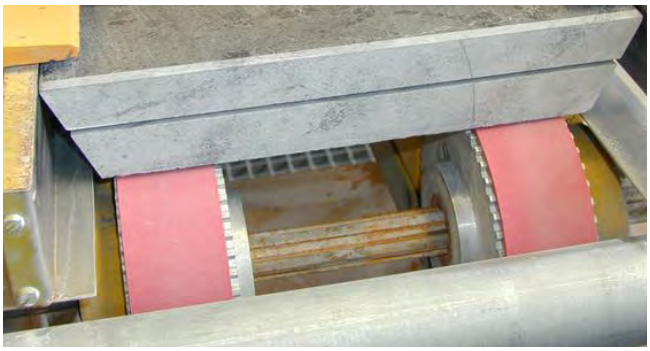
Ammeraal Beltech

EN

Covering Materials

Innovation and
Service in Belting

Covering Materials



The range of Ammeraal Beltech covering materials consists of more than 60 different types divided into 4 product segments:

rubber, PU & PVC, cellular and special covering materials

From the range various materials can be selected:

- Materials from very soft to extremely hard.
- Materials with cellular, fabric, felt or solid compositions.
- Materials with extremely high grip or contrary very low grip.
- Materials with antimicrobial and food quality characteristics.
- Materials with high oil, fat and chemical resistance.
- Materials with excellent abrasion, tear and wear resistance.

Outstanding mechanical and chemical properties together with special fabrication techniques lead to high-performance operation and precision, allowing us to customise belts for specific applications.

Bonding methods

- Several methods to bond cover materials on to timing belts depending on combinations.
- Methods from simple glueing to special casting treatment.
- Covers can be bonded with or without any seam or joint depending on material type and construction.
- Please consult Ammeraal Beltech experts for further information.

Custom fabrication

- Surface grinding to get even and exact cover thickness.
- Full range of machining operations like grooves and slots, either longitudinal or crosswise.
- Perforations by water jet cutting, punching or drilling.
- Combinations of covers, e.g. to achieve a soft material topped with a wear resistant outer cover.
- Final slitting to get required belt widths with non-fraying and precise edges.
- Embossing possible with specific cover materials to get e.g. light pattern surface for better grip.
- All above fabrications precisely according to drawings.

Pulley diameters

- Minimum pulley diameter can be calculated with „pulley factor“ mentioned in the table.
- Material thickness x pulley factor = minimum pulley diameter (approx.) for the finished covered belt.
- In general, the smaller the pulley, the thinner the cover needs to be.
- More flexibility can be achieved by cross slotting.

Note: the pulley diameter for the covered timing belt must be greater than or equal to the minimum pulley diameter for a basic timing belt. Please consult Ammeraal Beltech experts for further information.

Temperature range

- Maximum contact temperature: mentioned in the table (short time +10°C).
- Minimum contact temperature: -10°C for all cover materials. However properties of materials vary highly under low temperatures, therefore please consult Ammeraal Beltech experts for further information when the temperature is below -10°C (special cold resistant covers are available).
- Cover material, base belt and the bonding method all together specify the operation and contact temperature range.

Coefficient of friction

- Static approximate value against steel mentioned in the table.
- By fabrication methods friction values can be increased or decreased.
- For further information, please contact Ammeraal Beltech.

Colors

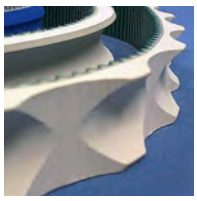
- Subject to change without notice.
- Custom colors are available on request.

Chemical resistance

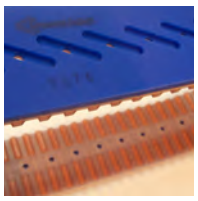
- Indication for ”oil and fat resistance“ in the table is only normative.
- The concentration and the temperature of the chemical has great influence on material resistance.
- For further information, please contact Ammeraal Beltech.

Other guidelines

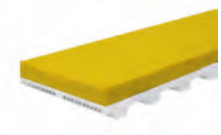
- Some covering materials have excellent good non-stick and release properties.
- Very often high cut, tear and abrasion characteristics are required.
- Antistatic properties should be considered particularly in electronic industry applications.
- Hygienic antimicrobial food quality materials are available for various food industry applications.
- Belts for vacuum applications require specific cover materials and fabrication to get holes, slots and possible vacuum lanes on the tooth side.
- Varying levels of cushioning and durability through material thickness and whardness selection.



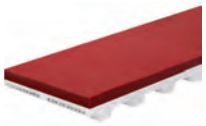


Covering Materials: Rubber

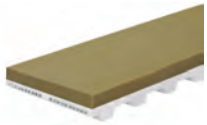


NRS 035 yellow
Natural rubber, excellent grip with good abrasion resistance

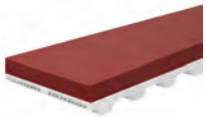


NRS 040 red
Natural rubber, high grip, good wear and abrasion resistance

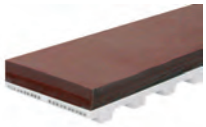
NRS 040 white FG
Natural rubber, high grip, good wear and abrasion resistance, food quality



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

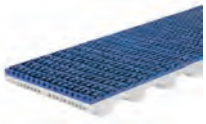


NRS 070 purple
Natural rubber, excellent wear and abrasion resistance, high cut and tear resistance

PBS 060 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



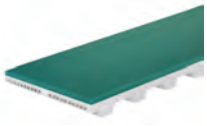
CXS 065 C37 blue
Nitrile rubber, high wear and abrasion resistance, oil and fat resistance, C37 supergrip pattern

SRS 040 C37 tan
Synthetic rubber, high wear and abrasion resistance, sensitive grip, C37 supergrip pattern

SRS 040 P19 white
Synthetic rubber, good wear and abrasion resistance, good grip, P19 nipple pattern

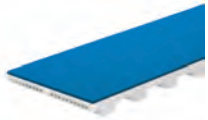
Rubber Type	Material	Hardness [° ShA]	Density [kg / m³]	Color	Max. contact temperature [°C]	Oil and fat resistance	Coeff. of friction	Food grade	Pulley factor	Standard thickness [mm]
NRS 035 yellow	natural rubber	35	990	yellow	+65	low	1.2	no	13	3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30
NRS 040 red	natural rubber	40	980	red	+70	low	1.0	no	15	1.6, 2.4, 3.2, 5, 6, 8, 10, 12, 15
NRS 040 white FG	natural rubber	40	1000	white	+70	limited	1.0	yes	15	2, 3, 5, 6, 8, 10
NRS 040 beige	synthetic rubber	40	1000	beige	+70	low	1.1	no	15	4, 6, 8, 10, 12, 15
NRS 060 red	natural rubber	60	1100	red	+75	low	0.9	no	17	3, 5, 6, 8, 10, 12, 20, 25
NRS 070 purple	natural rubber blend	70	1130	purple	+75	limited	0.6	no	20	3, 4, 5, 6, 8, 10, 12, 15, 20, 25
PBS 060 white FG	nitrile rubber	60	1300	white	+80	good	0.8	yes	18	3, 4, 5, 6, 8, 10
NTS 060 black	nitrile rubber	60	1300	black	+110	good	0.7	no	18	4, 6, 8, 10, 12
NTS 070 green	nitrile rubber	70	1200	green	+100	good	0.7	no	25	1, 2
CXS 065 C37 blue	nitrile rubber	65	750	blue	+120	excellent	0.9	no	20	4.3
SRS 040 C37 tan	synthetic rubber	40	800	tan	+80	limited	1.0	no	15	4.3
NTS 050 C37 red	nitrile rubber	50	1200	red	+120	excellent	0.7	no	20	4.3
SRS 040 P19 white	synthetic rubber	40	1700	white	+80	limited	na	no	20	2

Covering Materials: PU & PVC



PUS 060 blue
Polyurethane, high grip, flexible, very tough, embossing possible

PUS 080 transparent FG
Polyurethane, high grip, high abrasion resistance, cut and tear resistance, embossing possible



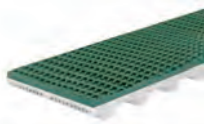
PUS 085 blue AM FG
Polyurethane, good abrasion resistance, excellent oil and fat resistance, antimicrobial, food quality

PUS 085 A16 blue AM FG
Polyurethane, good abrasion resistance, excellent oil and fat resistance, antimicrobial, A16 pattern

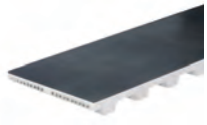
PUS 085 A5 blue FG
Polyurethane, good abrasion resistance, excellent oil and fat resistance, A5 nipple pattern

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
PVC, good chemical resistance, high grip, P6 supergrip pattern



PVS 032 black AS FR
PVC, high grip, antistatic, flame retardant, embossing possible

PVS 035 blue:
PVC, high grip, limited oil and grease resistance, embossing possible

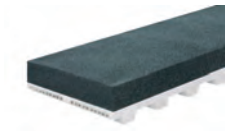
PVS 065 P27 white FG
PVC, good oil and grease resistance, good chemical resistance, P27 fish bone pattern

PVS 065 P13 white
PVC, good oil and grease resistance, good chemical resistance, P13 sawtooth pattern

PU & PVC Type	Material	Hardness [° ShA]	Density [kg / m³]	Color	Max. contact temperature [°C]	Oil and fat resistance	Coeff. of friction	Food grade	Pulley factor	Standard thickness [mm]
PUS 060	Polyurethane	60	1150	blue, black	+80	good	0.9	no	25	2.5
PUS 080 transparent FG	Polyurethane	80	1110	transp.	+80	good	0.8	yes	30	1, 2, 3, 4
PUS 085 white FG	TPU Ropanyl	85	1230	white	+90	excellent	0.6	yes	30	2
PUS 085 blue AM FG	TPU Ropanyl	85	1230	blue	+90	excellent	0.6	yes	30	1.5
PUS 085 A16 blue AM FG	TPU Ropanyl	85	860	blue	+90	excellent	na	yes	20	2.5
PUS 085 A5 blue FG	TPU Ropanyl	85	950	blue	+90	excellent	na	yes	20	3.5
PUS 092 white	Polyurethane	92	1300	white	+80	excellent	0.6	no	30	2, 3
PUS 080/BS white	PU Ropan BS	80	1000	white	+80	good	0.4	no	25	2, 3, 4
PVS 030 P6	PVC Flexam	30	780	blue, green	+90	limited	0.9	no	15	4
PVS 032 black AS FR	PVC Flexam	32	1150	black	+90	limited	1.1	no	20	2
PVS 035 blue	PVC Flexam	35	1390	blue	+90	limited	1.1	no	20	1, 2, 3
PVS 065 P27 white FG	PVC Nonex	65	660	white	+90	good	na	yes	18	4
PVS 065 FG	PVC Nonex	65	1330	blue, white	+90	good	0.7	yes	25	2 , 3, 4
PVS 065 blue AM FG	PVC Nonex	65	1330	blue	+90	good	0.7	yes	25	1.5
PVS 065 P13 white	PVC Nonex	65	750	white	+90	good	na	yes	18	4

Covering Materials: Cellular

NRS 160 grey
Natural rubber, open cellular construction, high resilience, high elasticity and porosity, compressible

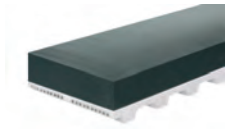


NRS 200 black
Natural rubber, open cellular construction, high grip, high resilience, high elasticity and porosity, compressible

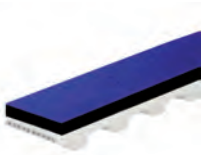
NRS 250 orange
Natural rubber, open cellular construction, non marking, high resilience, high elasticity and porosity

NRS 270 green
Natural rubber, open cellular construction, high grip, non marking, high resilience

NES 330 black
Neoprene rubber, closed cellular construction, very high grip, good oil and chemical resistance



NES 675 black
Neoprene rubber, closed cellular construction, very high grip, good aging and compression resistance



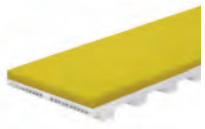
FBS 160 blue
Closed cellular neoprene rubber covered by premium stretch fabric, low friction surface

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

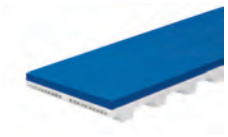
PUS 400 beige
Polyurethane, high density closed cellular construction, excellent wear resistance



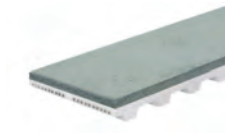
PUS 600 yellow
Polyurethane, very high density fully closed cellular construction, good wear and abrasion resistance

Cellular Type	Material	Hardness [° ShA]	Density [kg / m³]	Color	Max. contact temperature [°C]	Oil and fat resistance	Coeff. of friction	Food grade	Pulley factor	Standard thickness [mm]
NRS 160	natural sponge rubber	-	160	orange, grey	+65	low	1.0	no	6	5, 10, 15, 20, 25, 30
NRS 200	natural sponge rubber	-	200	orange, black	+65	low	1.0	no	6	3, 5, 8, 10,15,
NRS 250 orange	natural sponge rubber	-	250	orange	+65	low	1.0	no	8	5, 10, 15, 20, 25, 30
NRS 270 green	natural sponge rubber	-	270	green	+65	low	1.0	no	8	5, 10, 15
NES 330 black	neoprene sponge rubber	-	330	black	+85	good	1.3	no	10	5.5, 7, 10.5, 13, 30
NES 675 black	neoprene sponge rubber	-	675	black	+100	good	0.9	no	12	5.5, 7, 10.5, 14, 22
FBS 160 blue	fabric covered cellular neoprene	-	160	blue	+70	good	0.3	no	15	3, 6
PUS 220 blue	cellular polyurethane	-	220	blue	+70	good	0.5	no	12	5, 7, 11, 12, 14, 25
PUS 300 green	cellular polyurethane	-	300	green	+70	good	0.5	no	14	4, 5, 7, 10, 11, 12, 14, 25
PUS 400 brown	cellular polyurethane	-	400	brown	+70	good	0.5	no	15	3, 5, 11, 12, 14, 25
PUS 400 beige	cellular polyurethane	-	400	beige	+80	good	0.3	no	16	1, 2, 3, 4, 5, 6
PUS 600 yellow	microcellular polyurethane	50	600	yellow	+70	excellent	0.4	no	20	2, 3, 4, 5, 6, 8, 10

Covering Materials: Special

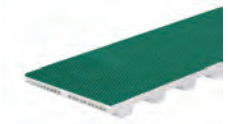


PRS 060 blue
Technopolymer, high grip, good abrasion resistance, light embossing possible, silicon-free, good flexibility at low temperatures

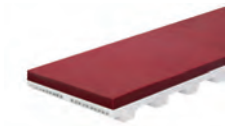


CLS 999 grey
Chrome leather, high abrasion resistance, medium grip, good for oily and greasy circumstances

NPS 055 brown
Needle punched polyester fabric, low grip, high abrasion and wear resistance



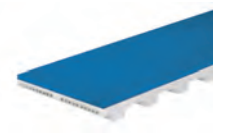
PAS 778 green
Low friction and low noise nylon fabric, excellent wear resistance, good oil and chemical resistance



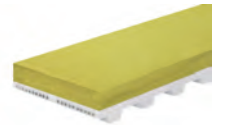
PLS 035 red
Pletex poly blend, high grip, limited oil and grease resistance, embossing possible

AMS 090 A16 ivory
Polyester, good abrasion resistance, excellent oil and fat resistance, A16 nipple pattern

SLS 060 blue
Silicone rubber, good wear and abrasion resistance, self-releasing surface



SLC 030 blue FG
Silam silicone rubber, excellent tear strength, high grip, self-releasing surface, food quality



KFS 999 yellow
Aramid felt, heat resistant, good abrasion resistance, good oil and fat resistance

ELS 060 green
Technopolymer, high grip, good oil and fat resistance, excellent abrasion and tear resistance

ELS 060 A34 green
Technopolymer, excellent abrasion and tear resistance, A34 supergrip pattern

Special Type	Material	Hardness [° ShA]	Density [kg / m³]	Color	Max. contact temperature [°C]	Oil and fat resistance	Coeff. of friction	Food grade	Pulley factor	Standard thickness [mm]
PRS 060	thermoplastic technopolymer	60	1030	red, blue	+80	good	0.9	no	25	2.3
CLS 999 grey	chrome leather	-	930	grey	+80	excellent	0.8	no	30	3
NPS 055 brown	needle punched polyester fabric	-	560	brown	+80	good	0.4	no	25	2.5
PAS 778 green	nylon fabric	-	220	green	+80	good	0.3	no	-	0.3
PLS 035 red	Pletex poly blend	35	1385	red	+90	limited	0.9	no	20	2, 3, 4
AMS 090 A16 ivory	Amtel polyester	90	450	ivory	+100	excellent	na	yes	30	2.5
SLS 060 blue	silicone rubber	60	1600	blue	+220	good	0.6	no	17	3.2, 4.5, 7.0
SLC 030 blue FG	silicone rubber Silam	30	1120	blue	+250	excellent	1.3	yes	15	1-10
KFS 999 yellow	Aramid felt	-	320	yellow	+250	good	0.3	no	na	10
ELS 060 green	Elastonyl techno-polymer	60	1060	green	+80	good	0.9	no	25	2, 3, 4
ELS 060 A34 green	Elastonyl techno-polymer	60	1060	green	+80	good	0.7	no	20	4

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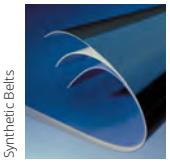
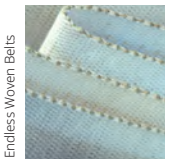
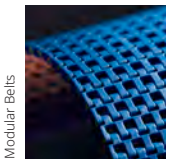

Synthetic Belts


Engineered Belts


Endless Woven Belts


Homogeneous Belts


Modular Belts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