

## **Technical Adhesive Tapes** Automotive

Keeping you connected.



## **Our business units**



Tapes

Cables

Cable Assemblies

## Coroplast adhesive tapes – experience and innovation from a single source

Coroplast was founded back in 1928. In the early years, the company extruded PVC – a new material at that time – to make insulation sleeves, cables and insulated wires. The material expertise and process know-how that Coroplast acquired during these years enabled it to commence production of PVC electrical insulating tapes after 1945, paving the way for the new Adhesive Tapes Division. It is now more than 40 years since Coroplast's transition from a pure manufacturer of insulating tapes to a provider of technical adhesive tapes in selected markets. This journey has been accompanied by a passion for innovation and the courage to explore new technologies and go down different paths. Examples of this include:

- The shift towards environmentally-friendly, solvent-free adhesive systems and hot-melt acrylic
- > The use of hot-melt technology in new products
- Numerous patent registrations
- Continual development of the product range toward special products for specific, customer-oriented applications

Coroplast insulating tape is already legendary. Even the more recent of our products already enjoy a considerable market presence and some are already leaders in their target markets. Coroplast is an independent family owned company that specializes in the development and production of technical adhesive tapes. As a result, we have short decision-making channels that enable us to respond quickly and flexibly to customers' and market requirements and at the same time work on sophisticated technical development projects and enhance our international presence. The Adhesive Tapes Division has production plants and distribution centers on three continents and operates with a global network of distributors. The in-house formulation and production of a range of pressure-sensitive adhesives has been an important factor in the company's success and it underlines Coroplast's commitment to being an adhesive tapes brand that delivers exceptional quality.



As well as synthetic rubber, Coroplast also offers singleand double-sided adhesive tapes with dispersion adhesive and solvent acrylic adhesive, also in modified form, as well as hot-melt acrylic and self-adhesive acrylic compositions. Customers and users can be found worldwide in technically demanding sectors of trade and industry, a great many of them being automobile manufacturers and their suppliers. It goes without saying that Coroplast is certified in accordance with ISO TS 16949.

The company also provides a wide variety of different packaging and dispensing methods: From single rolls, converter rolls and cross-wound spools to die-cut parts, including processing aids. Many different options are available and even in customer-specific packaging if requested. Our convictions and values - namely a pioneering mentality and desire to strive for technical improvements, coupled with speed - are the reasons why Coroplast is consistently able to deliver new solutions and products for the market and individual customers. Find out more about our strengths in developing and producing customer-specific solutions and special requests in conjunction with you, our customers needs. Our experienced and capable development team will be glad to advise you, whatever adhesive tape solutions you may need.

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# Coroplast 317, 651 MSX

Plasticized PVC wire harness tapes

### Applications, advantages and properties

- For bundling and binding wire harnesses
- Hand or machine applied
- Solvent-free adhesive
- › Equipped with fingerlift
- Highly flexible carrier
- Easy to tear by hand
- Highly chemical resistant
- Good resistance to cold and heat
- Resistant to ageing

#### 317

- Meets specifications in accordance with EN 60454-3-1 Type 10
- Flame-retardant

#### 651 MSX

- Carrier film made of extremely heat-resistant special compound
- Very good flexibility at low temperatures



Technical data	317	651 MSX
Carrier	plasticized PVC film	plasticized PVC film made of special compound
Adhesive	acrylic	acrylic
Thickness	0.15 mm	0.15 mm
Colors	black, other colors available on request	black, other colors available on request
Widths	9, 19 and 25 mm	9, 19 and 25 mm
Lengths	33 and 66 m	33 and 66 m
Tensile strength	18 N/cm	20 N/cm
Elongation at break	160%	180%
Adhesion to steel	2.0 N/cm	2.2 N/cm
Unwind force	4.0 – 9.0 N/19 mm	4.0 – 9.0 N/19 mm
Dielectric strength	> 40 kV/mm	> 40 kV/mm
Classification acc. to LV 312	105 AA	125 AA
Temperature range	– 25 to +105°C	– 25 to + 125°C

## **Coroflex 505, 512**

Halogen-free wire harness tapes, based on elastomer-modified PP blends

#### Applications, advantages and properties

- For bundling and binding wire harnesses
- Short tearing with high degree of elongation
- Can be applied fold-free on all uneven surfaces due to high flexibility
- Compatible with special automotive cables made of PP or XPE

Halogen-free

- Solvent-free adhesive
- > Heat-resistant: -40°C to +125°C for 3,000h in
- combination with PP and XPE cables,  $+105^{\circ}$ C for 3,000h in combination with PVC cables



Technical data	505	512
Carrier	elastomer-modified polypropylene film	elastomer-modified polypropylene film
Adhesive	acrylic	acrylic
Thickness	0.12 mm	0.15 mm
Colors	black, other colors available on request	black, other colors available on request
Widths	9, 19 and 25 mm	9, 19 and 25 mm
Lengths	25 m	25 m
Tensile strength	18 N/cm	20 N/cm
Elongation at break	350%	500%
Adhesion to steel	2.0 N/cm	2.0 N/cm
Unwind force	4,0 – 9.0 N/19 mm	4.0 – 9.0 N/19 mm
Dielectric strength	> 40 kV/mm	> 40 kV/mm
Classification acc. to LV 312	125 AA	125 AA
Temperature range	-40 to +125°C	-40 to +125°C

## **Coroplast 8300 series**

Polyester cloth tapes for wire harnesses

## Applications, advantages and properties

- For bundling and binding wire harnesses
- For the presentation of an abrasion resistant and/or attractive appearance
- Dense textile structure
- Resistant to ageing and rotting
- › Very good resistance to cold and heat

### 8310 SE/8320 SE

- High abrasion resistance
- Heat-resistant up to +150°C in combination with ETFE and FEP wires and up to +105°C for 3,000h in combination with PVC wires
- Solvent-free synthetic rubber with high adhesion
- Coroplast 8310 SE for manual application, Coroplast 8320 SE for machine application



#### 837 X/838 X

- Highly suitable for engine compartment and engine block applications
- Extremely heat-resistant
- > Excellent resistance to motor vehicle operating fluids
- Compatible with many cable insulation materials (e.g. XPE and PP)
- > Solvent-free acrylic adhesive
- Coroplast 837 X for manual application, Coroplast 838 X for machine application

### 8375 X

- Properties same as Coroplast 837 X, but in accordance with US market specifications
- High heat resistance

## 839

- Easy to tear by hand
- Attractive appearance on wire harnesses

## 839 X

- Easy to tear by hand
- Attractive appearance on wire harnesses
- Extremely heat-resistant
- > Excellent resistance to motor vehicle operating fluids
- Compatible with many cable insulation materials (e.g. XPE and PP)
- > Solvent-free acrylic adhesive

## 835

- High abrasion resistance
- Easy to tear by hand
- Solvent-free synthetic rubber with high adhesion
- Industry's first highly abrasion-resistant and easy to tear by hand product of its kind (patented technology)

### 835 X

- High abrasion resistance
- Easy to tear by hand
- Extremely heat-resistant
- Excellent resistance to motor vehicle operating fluids
- Compatible with many cable insulation materials (e.g. XPE and PP)
- Solvent-free acrylic adhesive
- Industry's first tearable and highly abrasion-resistant product of its kind (patented technology)



Technical data	8310 SE/ 8320 SE	837 X/ 838 X	8375 X	839	839 X	835	835 X
Carrier	PET cloth	PET cloth	PET cloth	PET cloth, easy to tear by hand	PET cloth, easy to tear by hand	PET cloth, easy to tear by hand	PET cloth, easy to tear by hand
Adhesive	synthetic rubber	acrylic	acrylic	synthetic rubber	acrylic	synthetic rubber	acrylic
Thickness	0.27 mm	0.27 mm	0.27 mm	0.17 mm	0.18 mm	0.27 mm	0.27 mm
Colors	black, orange, other colors available on request	black, orange, other colors available on request	black, orange, other colors available on request	black, white other colors available on request	black, white other colors available on request	black	black
Widths	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm
Lengths	8310 SE: 25 m 8320 SE: 50, 66 and 75m	837 X: 25 m 838 X: 50 and 66 m	25 m	25 and 50 m	25 and 50 m	25 m	25 m
Tensile strength	240 N/cm	250 N/cm	240 N/cm	60 N/cm	70 N/cm	70 N/cm	70 N/cm
Elongation at break	30%	30%	30%	30%	35%	25%	22%
Adhesion to steel	4.8 N/cm	4.9 N/cm	4.6 N/cm	4.8 N/cm	4.0 N/cm	4.8 N/cm	4.0 N/cm
Unwind force	8310 SE: 2.0 - 7.0 N/19 mm 8320 SE: 1.0 - 4.0 N/19 mm	837 X: 2.0 - 9.0 N/19 mm 838 X: 1,0 - 6.0 N/19 mm	2.0 - 9.0 N/19 mm	Manual: 2.0 - 9.0 N/19 mm Machine: 1.0 - 8.0 N/19 mm	Manual: 2.0 - 9.0 N/19 mm Machine: 1.0 - 8.0 N/19 mm	2.0 - 9.0 N/19 mm	2.0 - 9.0 N/19 mm
Classification acc. to LV 312	105/150 DA	150 DA	125 DA	125 BA	150 BA	125 DA	150 DA
Temperature range	-40 to + 105/150 °C	-40 to +150°C	-40 to +125°C	−40 to +125°C	-40 to +150°C	-40 to +125°C	-40 to +150°C

## **Coroplast 8500 series**

Stitch-bonded, non-woven, polyester adhesive tapes for wire harnesses

## Applications, advantages and properties

- For bundling and binding wire harnesses
- Material structure pleasant to the touch
- Suitable for sound dampening and rattle suppression in the transportation industry
- Resistant to ageing and rotting
- › Very good resistance to cold and heat



#### 8551

- Standard tape for general rattle suppression
- Solvent-free synthetic rubber with good adhesion
- Very easy to apply due to easy-tear property

#### 8550/8560

- Standard tape for better abrasion resistance and rattle suppression
- Solvent-free synthetic rubber with good adhesion
- Very easy to apply due to easy-tear property
- Coroplast 8550 for manual application, Coroplast 8560 for machine application
- Available in various colors for color coding

#### 8550 X/8560 X

- Standard tape for better abrasion resistance and rattle suppression
- Solvent-free acrylic adhesive
- Very easy to apply due to easy-tear property
- Coroplast 8550 X for manual application, Coroplast 8560 X for machine application

#### 8553 X/8563 X

- > OEM-specific version of Coroplast 8550 X
- Solvent-free acrylic adhesive
- Coroplast 8553 X for manual application, Coroplast 8563 X for machine application

#### 8510/8520

- Superior abrasion resistance and rattle suppression
- Solvent-free synthetic rubber with good adhesion
- · Easy to tear by hand
- Coroplast 8510 for manual application,
- Coroplast 8520 for machine application

Technical data	8551	8550/8560	8550 X/8560 X	8553 X/8563 X	8510/8520
Carrier	PET non-woven	PET non-woven	PET non-woven	PET non-woven	PET non-woven
Adhesive	synthetic rubber	synthetic rubber	acrylic	acrylic	synthetic rubber
Thickness	0.22 mm	0.3 mm	0.3 mm	0.3 mm	0.5 mm
Colors	black	black, white, red, blue, brown, green, yellow	black	black	black
Widths	9, 15, 19 and 25 mm	9, 15, 19 and 25 mm	9, 12, 15, 19 and 25 mm	9, 12, 15, 19 and 25 mm	9, 15, 19 and 25 mm
Lengths	25 m and 50 m	8550: 25 m 8560: 50 m	8550 X: 25 m 8560 X: 50 m	25 m	8510: 10 m 8520: 33 m
Tensile strength	30 N/cm	32 N/cm	32 N/cm	32 N/cm	42 N/cm
Elongation at break	20%	20%	20%	20%	19%
Adhesion to steel	4.0 N/cm	5.9 N/cm	2.5 N/cm	2.6 N/cm	6.0 N/cm
Unwind force	3.0-7.0 N/19 mm	8550: 3.0-7.0 N/19 mm 8560: 1.0-6.0 N/19 mm	8550X: 2.0-8.0 N/19 mm 8560X: 1.0-6.0 N/19 mm	2.0-8.0 N/19 mm	8510: 3.0 - 7.0 N/19 mm 8520: 1.0 - 6.0 N/19 mm
Classification acc. to LV 312	105 AC	105 BC	125 BC	125 BC	105 BC
Temperature range	-40 to +105°C	-40 to +105°C	-40 to +125°C	-40 to +125°C	-40 to +105°C

#### 8515 X

- > Properties same as Coroplast 8510, but in accordance with US market specifications
- Solvent-free acrylic adhesive
- · High heat resistance

#### 8571, 8572/8582

- > OEM-specific version of Coroplast 8570 with modified thickness requirements
- Solvent-free synthetic rubber with good adhesion
- Outstanding rattle suppression properties
- · High abrasion resistance
- > Easy to tear by hand
- · Coroplast 8572 for manual application, Coroplast 8582 for machine application

#### 8570/8580

- Outstanding rattle suppression properties
- Solvent-free synthetic rubber with good adhesion
- High abrasion resistance
- > Easy to tear by hand
- · Coroplast 8570 for manual application, Coroplast 8580 for machine application

#### 8575 X

- Outstanding rattle suppression properties
- Solvent-free acrylic adhesive
- › Very good abrasion resistance
- Tearable by hand

#### 8579 X

Outstanding rattle suppression properties

- Solvent-free acrylic adhesive
- Very good abrasion resistance



Technical data	8515 X	8571, 8572/8582	8570/8580	8575 X	8579 X
Carrier	PET non-woven	PET non-woven	PET non-woven	PET non-woven	PET non-woven
Adhesive	acrylic	synthetic rubber	synthetic rubber	acrylic	acrylic
Thickness	0.5 mm	8571: 0.7 mm; 8572/8582: 0.8 mm	0.9 mm	0.9 mm	1.0 mm
Colors	black	black	black	black	black
Widths	9, 19 and 25 mm	19 and 25 mm	19 and 25 mm	19 mm	19 mm
Lengths	25 m	8571, 8572: 7.5 m 8582: 15 m	8570: 5 m 8580: 10 m	5 m	5 m
Tensile strength	42 N/cm	27 N/cm	29 N/cm	30 N/cm	35 N/cm
Elongation at break	19%	17%	19%	20%	25%
Adhesion to steel	6.0 N/cm	4.8 N/cm	5.2 N/cm	3.2 N/cm	2.5 N/cm
Unwind force	3.0 – 7.0 N/19 mm	3.0 – 7.0 N/19 mm	3.0 – 7.0 N/19 mm	2.0 – 8.0 N/19 mm	2.0 – 8.0 N/19 mm
Classification acc. to LV 312	125 BC	105 DD	105 DD	125 DD	125 DD
Temperature range	-40 to +125°C	-40 to +105°C	-40 to +105°C	-40 to +125°C	-40 to +125°C

## Coroplast 8750

Fleece polyester adhesive tape for wire harnesses



## Applications, advantages and properties

- For manual bundling of wire harnesses
- , Can be torn laterally
- Smooth carrier material
- Solvent-free adhesive
- Resistant to ageing and rotting

Technical data	8750
Carrier	PET fleece
Adhesive	synthetic rubber
Thickness	0.3 mm
Colors	black
Widths	9 and 19 mm
Lengths	25 m
Tensile strength	30 N/cm
Elongation at break	20%
Adhesion to steel	4.0 N/cm
Classification acc. to LV 312	105 AC
Temperature range	-40 to +105°C

## **Coroplast SLX series**

Adhesive tapes for lightweight wire harnesses



### Applications, advantages and properties

- For manual bundling of wire harnesses
- > Light weight achieved by low area weight
- Cost-optimized product design
- Compatible with many cable insulation materials

#### 816 SLX

> Environmentally-friendly version made from renewable raw materials

## 836 SLX

- > PET cloth adhesive tape, easy to tear by hand
- Extremely heat-resistant
- Resistant to ageing and rotting
- · Good resistance to chemicals and motor vehicle operating fluids

### 856 SLX

- Stitch-bonded, non-woven polyester adhesive tape, easy to tear by hand
- Heat-resistant
- Resistant to ageing and rotting
- , Good resistance to chemicals and motor vehicle operating fluids

### 876 SLX

- > Non-woven polyester adhesive tape, hand tearable
- Extremely heat-resistant

- Resistant to ageing and rotting
- Good resistance to chemicals and motor vehicle operating fluids

Technical data	816 SLX	836 SLX	856 SLX	876 SLX
Carrier	spun rayon fabric	PET cloth	non-woven PET	non-woven PET
Adhesive	acrylic	acrylic	acrylic	acrylic
Thickness	0.2 mm	0.15 mm	0.28 mm	0.3 mm
Colors	black	black	black	black
Widths	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm	9, 19 and 25 mm
Lengths	25 m	25 m	25 m	15 m
Tensile strength	70 N/cm	65 N/cm	30 N/cm	22 N/cm
Elongation at break	5%	15%	15%	30%
Adhesion to steel	4 N/cm	3.5 N/cm	2.2 N/cm	3.5 N/cm
Classification acc. to LV 312	105 AA	150 AA	125 AC	150 AC
Temperature range	-40 to +105°C	-40 to +150°C	-40 to +125°C	-40 to +150°C

## Coroplast 5170

PUR foam, reinforced

## Coroplast 8440 X

Acoustic adhesive tape



## Applications, advantages and properties

- Single-sided polyurethane foam for wrapping and covering wire harnesses
- Suitable for noise dampening caused by rattles and vibration in the transportation industry
- Apart from the transportation industry it can be used in the furniture and lighting, in concrete processing and air-filter construction industries
- Reinforced with bonded/non-woven fabric
- Covered with brown paper interliner
- Easily compressible
- Good tear resistance

## Applications, advantages and properties

Coroplast 8440 X

- For manual bundling of wire harnesses
- Extremely resistant to cold and heat
- Excellent alternative to foam adhesive tapes
- Outstanding rattle suppression properties
- Excellent sound dampening properties
- Resistant to ageing and rotting

Technical data	5170	8440 X
Carrier	PU foam, reinforced w. bonded/non-woven	PET fleece
Adhesive	acrylic	acrylic
Thickness	4.0 mm	2.0 mm
Colors	anthracite; cover: paper, brown	black
Widths	19, 30 and 50 mm	19 and 25 mm
Lengths	10 and 20 m	5 m
Tensile strength	30 N/25 mm	55 N/cm
Elongation at break	30%	54%
Adhesion to steel	35 N/25 mm	2.0 N/cm
Classification acc. to LV 312	105 AE	125 BE
Temperature range	-40 to +105°C	-40 to +125°C

## **Coroplast 880, 880 X**

PA velour tapes for wire harnesses



### Applications, advantages and properties

- For manual bundling and binding of for manual bundling of wire harnesses
- High abrasion resistance
- Suitable for use with hook tape (Velcro<sup>®</sup>)
- Excellent sound dampening properties
- Resistant to ageing and rotting
- Soft carrier
- Good resistance to cold and heat

#### 880

Solvent-free synthetic rubber

### 880 X

- Excellent resistance to motor vehicle operating fluids and extreme heat
- Compatible with many cable insulation materials (e.g. XPE and PP)
- Solvent-free acrylic adhesive

Technical data	880	880 X
Carrier	PA velour	PA velour
Adhesive	synthetic rubber	acrylic
Thickness	1.0 mm	1.0 mm
Colors	black	black
Widths	19 and 25 mm	19 and 25 mm
Lengths	5 m	5 m
Tensile strength	160 N/cm	160 N/cm
Elongation at break	40%	40%
Adhesion to steel	5.3 N/cm	1.8 N/cm
Classification acc. to LV 312	105 DE	125 DE
Temperature range	-40 to +105°C	-40 to + 125°C

## **Coroplast MPX series**

Abrasion-resistant tapes for heavy-duty mechanical protection

## Applications, advantages and properties

- › For manual bundling of wire harnesses
- Very high abrasion resistance
- Very good resistance to cold and heat
- Compatible with many cable insulation materials (e.g. XPE and PP)
- > Excellent resistance to motor vehicle operating fluids
- Solvent-free acrylic adhesive
- Resistant to ageing and rotting

#### 831 MPX

- · Laminate PET film/PET cloth adhesive tape
- Very high abrasion resistance
- Moisture-repellent surface due to laminated PET film
- Dense textile structure with, good tear resistance

#### 832 MPX

- Polyamide cloth adhesive tape
- Excellent abrasion resistance
- Dense textile structure of PA carrier
- Tear-proof

## 833 MPX

- Multi-layer PET cloth/non-woven adhesive tape
- Excellent sound dampening properties
- Excellent abrasion resistance
- See handling instructions for final wrapping

## 834 MPX

- > Multi-layer PET/PA adhesive tape
- Excellent sound damping properties
- Outstanding abrasion resistance



Technical data	831 MPX	832 MPX	833 MPX	834 MPX
Carrier	Laminate PET film/PET cloth	PA cloth	Laminate PET cloth/stitch- bonded PET non-woven	Laminate PA cloth/stitch- bonded PET non-woven
Adhesive	acrylic	acrylic	acrylic	acrylic
Thickness	0.32 mm	0.35 mm	1.2 mm	1.2 mm
Colors	black	black	black	black
Widths	19, 25 and 38 mm	19, 25 and 38 mm	19, 25 and 38 mm	19, 25 and 38 mm
Lengths	15 m	15 m	5 m	5 m
Tensile strength	260 N/cm	450 N/cm	270 N/cm	500 N/cm
Elongation at break	30%	40%	30%	50%
Adhesion to steel	4.2 N/cm	3.0 N/cm	3.0 N/cm	3.0 N/cm
Classification acc. to LV 312	125 DA	125 EA	125 ED	125 GD
Temperature range	-40 to +125°C	-40 to +125°C	-40 to +125°C	-40 to +125°C

# Coroplast 1238 X, 1239 X

Heat reflection tapes

## Applications, advantages and properties

- Specially compounded adhesive made of aluminum and PET cloth
- Heat reflection adhesive tapes for manual bundling of wire harnesses that are exposed to high radiant heat
- High-quality EFTE cables can be replaced by cables with a lower temperature class (e.g. XPE cables) due to a significant drop in inner harness temperature by reflecting the radiant heat (see graph).
- > 3,000 h heat resistance at 125 to 150°C when glued, short term up to 240 h at 175°C depending on cable material
- Outstanding chemical resistance to motor vehicle and other operating fluids
- Excellent resistance to cold and heat
- Resistant to ageing and rotting
- Compatible with many cable insulation materials (e.g. XPE and PP)
- > PVC-compatible

### 1238 X

, Very stable, abrasion- and tear-resistant textile carrier

#### 1239 X

· Laminated carrier easy to tear by hand



Technical data	1238 X	1239 X
Carrier	Special aluminum foil/ PET cloth laminate	Special aluminum foil/ PET cloth laminate
Adhesive	acrylic	acrylic
Thickness	0.28 mm	0.23 mm
Colors	aluminum-colored	aluminum-colored
Widths	19 and 25 mm	19 and 25 mm
Lengths	25 m	25 m
Tensile strength	240 N/cm	60 N/cm
Elongation at break	30%	15%
Adhesion to steel	3.0 N/cm	4.2 N/cm
Classification LV 312	150 DA	150 BA
Temperature range	-40 to +150°C	-40 to +150°C



## Coroplast 8002, 8005, 8302

Splice tapes



### Applications, advantages and properties

- For bundling of wire harnesses, cable
- junctions and solder joints
- For manual and machine wrapping of wire harnesses on special bundling machines
- Good dielectric properties
- High adhesion
- Solvent-free synthetic rubber adhesive
- · Good resistance to ageing and rotting

## Corotex 8002

- Acrylic-coated spun rayon fabric
- Can easily be torn laterally by hand
- Moisture-repellent surface

## Corotex 8005

- Acrylic-coated PET cloth
- > Rot-resistant cloth carrier
- · Can easily be torn laterally by hand
- Moisture-repellent surface

#### 8302

- Dense textile structure of cloth
- Dielectric strength of 8 kV/mm

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Technical data	Corotex 8002	Corotex 8005	8302
Carrier	acrylic-coated spun rayon fabric	acrylic-coated PET cloth	dense textile structure of PET cloth
Adhesive	synthetic rubber	synthetic rubber	synthetic rubber
Thickness	0.28 mm	0.23 mm	0.23 mm
Colors	black	black, other colors available on request	black
Widths	38 and 50 mm	38 and 50 mm	19, 25, 38 and 50 mm
Lengths	25 and 50 m	25 and 50 m	50 m
Tensile strength	85 N/cm	82 N/cm	220 N/cm
Elongation at break	10%	30%	30%
Adhesion to steel	5.2 N/cm	5.5 N/cm	4.8 N/cm
Classification acc. to LV 312	105 CA	105 BA	105 CA
Temperature range	– 40 to +105°C	-40 to +105°C	-40 to +105°C

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## **Coroplast 8606**

Glass cloth adhesive tape



## Applications, advantages and properties

- For manual bundling of wire harnesses
- Especially suitable for applications that demand extreme heat resistance
- Exceeds the requirements of temperature class E according to LV 312
- Good adhesive characteristics on most surfaces
- High tear resistance
- Extremely resistant to chemicals
- Self-extinguishing
- Resistance to ageing and rotting

Technical data	8606
Carrier	glass cloth
Adhesive	thermosetting silicone-based adhesive
Thickness	0.15 mm
Colors	white
Widths	19 mm
Lengths	25 m
Tensile strength	220 N/cm
Elongation at break	5%
Adhesion to steel	4.0 N/cm
Classification acc. to LV 312	175 AA
Temperature range	-40 to +250°C

## **Coroplast LT series**

Sleeve tapes for longitudinal wire harness bundling

## Applications, advantages and properties

- Developed specifically to minimize the contact between adhesive and wire bundle allowing maximum flexibility of harness
- › Very good resistance to cold and heat
- Good chemical resistance
- Solvent-free adhesive
- Resistance to ageing and rotting
- > Please see handling instructions

#### 837 X LT, 837 X LT3

- Sleeve adhesive tape with polyester textile carrier
- Extremely heat-resistant for engine compartment
- applications
- Tear-proof

### 837 X LT1, 837 X LT4

- Sleeve adhesive tape with polyester textile carrier
  Extremely heat-resistant for engine compartment
- applications
- · High abrasion resistance
- > Tear-proof

### 1238 X LT1

- Sleeve adhesive tape made of an aluminum foil and PET cloth laminate
- Inside temperature of the wire harness is drastically reduced through reflection of the radiant heat
- Extremely heat-resistant for engine compartment applications

#### 8550 LT

- Sleeve adhesive tape with stitch-bonded, PET non-woven carrier
- › Solvent-free synthetic rubber adhesive
- > A very and sound dampening carrier





Other sleeve application tape structures available



Structure of Coroplast 837 X LT1 and 1238 X LT1



Sleeve application tapes are also available as die cut parts for simple and efficient processing, depending on type and carrier.

Technical data	837 X LT	837 X LT1	837 X LT3	837 X LT4	1238 X LT1	8550 LT
Carrier	PET cloth	PET cloth	PET cloth	PET cloth	Special aluminum/ PET cloth laminate	PET non-woven
Adhesive	acrylic	acrylic	acrylic	acrylic	acrylic	synthetic rubber
Sleeve thickness	0.2 mm	0.5 mm	0.2 mm	0.5 mm	0.3 mm	0.25/0.55 mm
Colors	black	black	black	black	aluminum-colored	black
Widths	80, 115, 130 and 180 mm	80, 115, 130 and 180 mm				
Lengths	15 and 50 m	15 and 50 m	15, 25 and 50 m	50 m	50 m	15 and 50 m
Tensile strength	250 N/cm	400 N/cm	250 N/cm	400 N/cm	240 N/cm	32 N/cm
Elongation at break	30%	22%	30%	22%	27%	20%
Adhesion to steel	4.0 N/cm	4.0 N/cm	4.0 N/cm	4.0 N/cm	3.0 N/cm	6.0 N/cm
Classification acc. to LV 312	150 BA	150 EA	150 BA	150 DA	150 DA	105 AC
Temperature range	-40 to +150°C	-40 to +105°C				

## **Coroplast RT series**

Reverse tapes for flexible wire harness bundling

### Applications, advantages and properties

- Developed specifically to minimize the contact between adhesive and wire bundle allowing maximum flexibility of harness
- · For use in confined areas and limited installation spaces
- Very good resistance to cold and heat
- Good chemical resistance
- Solvent-free adhesive
- Resistance to ageing and rotting
- Available in R (right) and L (left) versions
- > Perform final wrapping with tape wound onto itself

### 839 RT

- > PET cloth adhesive tape, easy to tear by hand
- Solvent-free synthetic rubber adhesive
- Abrasion resistant

## 8550 RT

- Stitch-bonded, non-woven PET adhesive tape
- Solvent-free synthetic rubber adhesive
- Good sound dampening

## 837 X RT

- Extremely heat-resistant
- Very good abrasion resistance
- Solvent-free acrylic adhesive
- Tear-proof

### 835 X RT

- Easy to tear by hand
- Extremely heat-resistant
- High abrasion resistance
- Solvent-free acrylic adhesive

## 880 X RT

- › Very good heat and tear resistance
- Very good sound dampening properties
- · High abrasion resistance

## 832 MPX RT

- Polyamide cloth adhesive tape
- Maximum abrasion resistance
- Dense textile structure of PA carrier
- Tear-proof

Technical data	839 RT	8550 RT	837 X RT	835 X RT
Carrier	PET cloth	PET non-woven	PET cloth	PET cloth
Adhesive	synthetic rubber	synthetic rubber	acrylic	acrylic
Thickness	0.3 mm	0.5 mm	0.5 mm	0.5 mm
Colors	black	black	black	black
Widths	35 and 50 mm	35 and 50 mm	35 and 50 mm	35 and 50 mm
Lengths	10 m	10 m	10 m	10 m
Tensile strength	100 N/cm	50 N/cm	300 N/cm	68 N/cm
Elongation at break	27%	20%	30%	22%
Adhesion to steel	4.5 N/cm	4.5 N/cm	4.5 N/cm	4.0 N/cm
Classification acc. to LV 312	125 CA	105 BD	105/150 EB	150 DB
Temperature range	-40 to +125°C	-40 to +105°C	-40 to +150°C	-40 to +150°C

Please see handling instructions for these products, which we will gladly provide you with.

## 833 MPX RT

- Multi-layer PET adhesive tape
- Additional excellent sound damping properties
- Very high abrasion resistance
- Tear-proof

### 834 MPX RT

- Multi-layer PET/PA adhesive tape
- Excellent sound damping properties
- Outstanding abrasion resistance
- Tear-proof





Technical data	880 X RT	832 MPX RT	833 MPX RT	834 MPX RT
Carrier	PA velour/PET cloth	PA cloth	PET cloth/PET non-woven	Laminate PA cloth/PET non-woven
Adhesive	acrylic	acrylic	acrylic	acrylic
Thickness	1.2 mm	0.7 mm	1.2 mm	1.2 mm
Colors	black	black	black	black
Widths	35 and 50 mm	35 and 50 mm	35 and 50 mm	35 and 50 mm
Lengths	10 m	10 m	10 m	10 m
Tensile strength	360 N/cm	500 N/cm	290 N/cm	550 N/cm
Elongation at break	37%	50%	32%	55%
Adhesion to steel	4.5 N/cm	3.0 N/cm	3.0 N/cm	3.0 N/cm
Classification acc. to LV 312	125 EE	125 GB	125 ED	125 FD
Temperature range	-40 to +125°C	-40 to +125°C	-40 to +125°C	-40 to +125°C

## **Coroplast safety knife**

Special tool for cutting wire harness tapes



#### Applications, advantages and properties

- High quality product (manufactured in Solingen, Germany)
- Compact size: 76 mm x 45 mm
- > Alternative to scissors, knife or tearing by hand

## Information

on selecting the correct adhesive tape width and on classification of wire harness tapes in accordance with LV 312

### Choice of tape width for automotive adhesive tapes

Different tape widths should be used depending on the diameter of the wire harness. The following rule of thumb applies for selecting the width:

Harness diameter	Adhesive tape width
< 2 mm	9 mm
3 mm to 5 mm	12 mm
6 mm to 20 mm	19 mm
> 20 mm	25 mm

Please find our handling instructions online at www.coroplast.de

### Classification in accordance with automobile testing standard LV 312 (excerpt)

		Abrasion classes 5 mm mandrel	Sound damping classes
Class	Classification	Requirement No. of strokes	Requirement Dampening in dB(A)
А	None/low	< 100	0 to 2
В	Low	100 to 499	> 2 to 5
С	Medium	500 to 999	> 5 to 10
D	High	1,000 to 4.999	> 10 to 15
E	Very high	5,000 to 14,999	> 15
F	Extremely high	15,000 to 29,999	
G	Special applications	> 30,000	

# **Coroplast automotive approvals**

	BMW	Chrysler	Daimler	Fiat	Ford	GM/Opel	Nissan	MAN	PSA	Renault	Tata Motors	Volvo	ŴŃ	Temperature class*	Abrasion class (5 mm mandrel)*	Sound dampening class*
302	•		•										•	105	А	A
317	•		•		•	•							•	105	А	A
505		•							•					125	А	A
512	•				•	•		•	•			•	•	125	А	A
651 MSX	•	•			•	•			•	•			•	125	А	A
835					•	•								125	D	A
835 X		•	•		•				•		•			150	D	A
837 X / 838 X	•	•	•		•	•		•	•	•	•		•	150	D	A
8375 X					•	•								125	D	A
839	•		•	•	•	•							•	125	В	A
839 X	•		•	•	•	•			•	•				150	В	A
8302	•		•			•							•	105	C	A
8310 SE / 8320 SE	•		•		•	•				•			•	105/150	D	A
8510 / 8520				-	•				•	•			•	105	B	C C
8515 X					•				-	-				125	C	B
8550 / 8560	•		•			•		•		•	•		•	105	B	C
8550 X / 8560 X	•		•		•	•		-		•			-	105	B	C C
8551	•		•			•	•		•	-			•	105	۵ ۵	0 C
9553 V	•		-		•	-	•		•				•	105	R	C
0555 / 0500													•	105		
0570/0500			•							•				105		
0570 / 0500	•		•		•	•				•			•	105	D	
857278582	•													105	D	D
8579 X	-			-									•	125	D	D
8002	•		•		•					•			•	105	0	A
8005					•				•					105	C	A
880	•		•	•	•								•	105	D	E
880 X	•		•	•	•			•	•				•	125	D	E
8440 X			•										•	125	В	E
8750					•								•	105	A	С
8750 X					•								•	125	A	С
831 MPX										•				125	D	A
832 MPX			•		•	•		•					•	125	E	A
833 MPX	•				•								•	125	E	D
834 MPX			•					•					•	125	G	D
1238 X			•		•									150	D	A
1239 X					•									150	В	A
1335 XE													•	n/s	n/s	n/s
837 X RT		•	•		•	•							•	150	E	В
839 RT	•		•		•	•				•			•	125	С	A
839 X RT			•						•					150	D	В
8550 RT	•		•		•	•		•	•				•	105	В	D
1238 X RT			•											150	D	A
832 MPX RT			•					•						125	G	В
833 MPX RT													•	125	E	D
834 MPX RT								•						125	G	D
837 X LT					•	•								150	В	A
837 X LT1						•								150	Е	A
837 X LT4						•								150	D	A
8550 LT	•		•											105	А	С
1238 X LT1					•			•						105	D	A
836 SLX			•						•				•	105	A	A
856 SLX			•		•	•								125	A	С
876 SLX					•	•			•	•			•	150	A	C C
5170	•													105	A	E
5173						•								105	A	F
5174						•								105	A	F
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\* according to LV 312.

Version 05/2015

## Glossary

#### **Abrasion resistance**

Abrasion resistance is the resistance of an adhesive tape to rubbing or friction to rubbing or friction. Adhesive tapes are classified according to abrasion classes A (low abrasion resistance) to G (outstanding abrasion resistance for special applications) in line with LV 312.

#### **Acrylic adhesive**

Acrylic adhesives are made of polymerized acrylic acid esters. They can be mixed with resin to enhance tack. These adhesives are available as solutions, watery dispersions or as hot melt adhesives. Their special characteristics include high ageing, temperature and chemical resistance, good compatibility with cable insulations and high resistance to UV radiation and oxidation.

#### Adhesion

Adhesion describes the hold between the surface of the adhesive tape and the taped material.

#### **Adhesive force**

Adhesive force combines the terms adhesion and cohesion and describes the force that is necessary to remove an adhesive tape from a surface. Standardized laboratory tests per EN 1939 are conducted to achieve comparable values. A 20 mm-wide strip of adhesive tape is applied to a steel plate and rolled on with a steel roller. It is then pulled off at a specified speed and at angle of 180° and the force required to pull it off is measured in N/cm.

#### **Ageing resistance**

Adhesive tapes used in the automotive industry are subjected to various ageing tests (e.g. temperature endurance tests) to ascertain whether and how their properties change as a result.

#### **Backing material**

The backing material is the carrier material to which the adhesive is applied.

#### **Breakdown voltage**

The minimum voltage that makes an insulator act as a conductor. It is significant for electrical insulating tapes and is measured in kV/mm.

#### Cohesion

Cohesion describes the inner stability of the adhesive. Adhesives with low cohesion leave a residue on the substrate when the adhesive tape is removed.

#### Compatibility

Ability of two or more materials to interact without impairing the performance of any one component. A good compatibility of the adhesive tape with the cable insulation is a necessity when the cables are being wound.

#### **Dispersion adhesive**

In dispersion adhesives, the adhesive polymer particles are finely dispersed in water. Most dispersion adhesives are solvent-free. Emulsifiers have to be added to stabilise the dispersion.

#### **Elongation at break**

The strain required to break the material. For adhesive tapes this is specified according to EN 14410 and it is stated in %.

#### **Hot-melt adhesive**

A solvent-free adhesive that is applied hot. Both acrylic adhesives and synthetic rubber-based adhesives can be processed hot.

#### **Initial tack**

Pressure-sensitive adhesives bond on contact. This is called initial tack. Some adhesives, especially adhesives on a butyl or acrylate basis, only achieve maximum adhesion some hours or days after they have been applied.

#### Laminate

Different backing materials are joined inseparably (laminated) whereby the combination of their respective properties results in a new back material.

#### Leak tightness

Leak tightness is a material's barrier function against substances such as chemicals, moisture or gas.

#### Liner

Films and papers coated on one or both sides with silicone are used as liners pressure-sensitive sensitive adhesives. The siliconization makes them adhesive-repellent, which prevents this unintentional bonding of the various layers.

#### LV 312

A recognized testing guideline (Leistungs-Vorschrift) published by German automotive manufacturers for rating of wire harness tapes.

#### µm (micron)

A micrometer or micron is one millionth of a meter or one thousandth of a millimetre (0.001 mm). It is used to measure the thickness of materials such as films.

#### Ν

Newton is a unit of measure for force.

#### Non-woven

Textiles made of natural or man-made fibers without weaving. The non-woven's internal stability is achieved by pressing under heat or by stitching the individual fibers.

#### **Operating temperature**

The operating temperature is the range of temperatures at which the adhesive bond remains intact and has nothing to do with the processing temperature. Electrical insulating tapes are classified according to EN 60454 and wire harness tapes according to LV 312.

#### Polyamide (PA)

Depending on the carrier, adhesive tapes with a PA backing material exhibit high temperature and abrasion resistance. Adhesive tapes with PA textile or PA velour backing material possess the highest level of abrasion resistance as defined by LV 312.

#### Polyester (polyethylene terephthalate, PET)

PET films and fabrics have outstanding tensile strength and tearing resistance. They are extremely resistant to high temperatures, alkaline solutions, acids, oils and many solvents. PET fabrics generally unite high abrasion resistance with good resistance to high temperatures and chemicals.

#### **Polyethylene (PE)**

PE films are soft and elastic, with high leak tightness and low tensile strength. Polyethylene is solvent-resistant but sensitive to UV radiation. These films are used to make electrical insulating tapes and anti-corrosion tapes.

#### **Polypropylene (PP)**

PP films are halogen-free and their properties are comparable with those of PE films. Although they are slightly less flexible, they are more temperature-resistant and can be used as a substitute for PVC adhesive tapes.

#### **Polyvinyl chloride (PVC)**

PVC films have good ageing and UV resistance properties. That is why PVC adhesive tapes are often used for outdoor applications. Different quantities of plasticizer can be added to PVC to make it extremely flexible. PVC adhesive tapes are widely used as electrical insulating tapes due to their flame-retardant properties and good dielectric breakdown values.

#### **Pressure-sensitive adhesive**

A permanently active adhesive that is widely used on adhesive tapes or labels. As the name indicates, the adhesive is activated by pressure. Secure bonding of the adhesive strip is achieved by pressing it down firmly.

#### Primer

A primer improves adhesion on surfaces that make adhesion difficult. It is often applied as a solvent-containing coating.

#### **Processing temperature**

The temperature at which adhesive tapes can be processed. As far as possible, however, they should be applied at ambient temperatures between  $+10^{\circ}$ C and  $+30^{\circ}$ C.

#### **Rubber-based adhesive**

Rubber-based adhesives consist of natural or synthetic rubber with added resin and softeners to provide adhesive tack. These adhesives are available as solutions or hot-melt adhesives. They have high initial adhesion but limited resistance to chemicals, solvents and UV radiation. Rubber-based adhesives are less temperature- and plasticizer-resistant than acrylic adhesives.

#### S<sub>d</sub> value

The  $S_d$  value is the measurand of the water vapor permeability of a substance. The higher the value, the less water vapor permeates the substance in comparison with air.

#### **Shear resistance**

Shear resistance is the bonding strength of an adhesive when it is pulled off parallel to the glued surface (0° angle). It is tested by applying a section of adhesive tape to the end of a vertical steel plate and attaching a weight to the other end. Shear resistance is measured either as the time until the bond breaks or the maximum weight that the adhesive can bear.

#### **Shelf life**

The time for which an adhesive tape can be stored without any notable impairment of performance. Adhesive tapes generally have a shelf life of at least 6 months.

#### Silicone

Silicone is made of chemically modified  $SiO_2$  (sand). It has an adhesive-repellent surface and is therefore used on release papers or films (liners).

#### **Solvent-based adhesive**

50% of the adhesive often consists of a mixture of different solvents that have to be vaporized when the coating is applied to the backing material. Rubber adhesives and acrylic adhesives can be applied as solvent-based adhesives. Adhesive tapes with these adhesives often have a distinctive odor as a result of incomplete vaporization of the solvents.

#### Sound dampening

The extent to which adhesive tapes dampen noise. Adhesive tapes are classified in sound dampening classes A (low sound dampening) to E (maximum sound dampening) per LV 312. It is measured in dB(A).

#### Tack

A measure of the viscous flow of an adhesive that describes its stickiness at minimum application pressure. Tack is measured in tests such as the "rolling ball test", in which a steel ball is rolled onto the adhesive surface. The distance that the ball rolls until it sticks to the from a 'ramp'. is measured. The shorter the distance, the higher the tack.

#### Telescoping

Telescoping is when the adhesive tape protrudes from the side of the roll as a result of internal pressure. This deformation does not affect its adhesive properties. Telescoping can be caused by the rolls being too tight or by improper storage or transport conditions (temperature, moisture).

#### Tensile strength

The pull stress required to break a material. For adhesive tapes, tensile strength is determined in accordance with EN 14410, and it is stated in N/cm.

#### **Textiles**

Textiles may be cloth, made of warp and weft, or non-wovens. Yarn and fibers are usually made of polyester, viscose or polyamide.

#### **Unwind force**

The force that is necessary to unwind the adhesive tape from the roll. Unwind force is measured in N (Newton).

#### **UV** radiation

Ultra-violet radiation is a component of sunlight that can cause chemical reactions. UV radiation can also be used for cross-linking to improve the stability of acrylates.

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## **Coroplast – Production sites for technical tapes**



#### Germany, Wuppertal

Coroplast Fritz Müller GmbH & Co. KG Wittener Straße 271 42279 Wuppertal Tel. +49 202 2681 0 Fax +49 202 2681 380 tapes@coroplast.de www.coroplast.de

### USA, Rock Hill

Coroplast Tape Corporation 1230, Galleria Boulevard 29730 Rock Hill South Carolina Tel. +1 803 2078334 tapes@coroplast.us www.coroplast.us

### China, Kunshan

Coroplast Harness Technology Co., Ltd. 299 Yuyang Road Plainvim Industrial Park 215300 Kunshan, Jiangsu Province Tel. +86 512 3665 0600 ext. 1000 Fax +86 512 3665 0603 tapes@coroplast.cn www.coroplast.cn

#### **Other Coroplast production sites**

China:	Taicang . Mianyang
Poland:	Krapkowice . Dylaki . Strzelce Opolskie
Tunisia:	El Kef . Hammamet
Mexico:	Acámbaro

#### Imprint

Coroplast Fritz Müller GmbH & Co. KG Tapes – Cables – Cable Assemblies

Wittener Straße 271, D-42279 Wuppertal, Germany Tel. +49 202 2681 0, Fax +49 202 2681 380 tapes@coroplast.de, www.coroplast.de

Responsible for the content: Constanze Krieger, Manager Marketing & Communication

Coroplast Fritz Müller GmbH & Co. KG Tapes – Cables – Cable Assemblies Wittener Straße 271, 42279 Wuppertal, Germany Tel. +49 202 2681 0, Fax +49 202 2681 380 tapes@coroplast.de, www.coroplast.de