



# RIBBED V-BELTS

## GENUINE MINI PARTS

- ▶ **High capability, long operating life**
- ▶ **Matched to the MINI engine power**
- ▶ **Maximum force to 2,000 N specifically for ribbed V-belts**

### FUNCTION IN DETAIL

Without ribbed V-belts, nothing runs in the car – except the engine.

- All auxiliary equipment like the alternator, water pump, air-conditioning compressor, ventilation etc. is linked to the engine via ribbed V-belts and transfer the power of the engine to the drives of these units.
- For MINI Diesel, the power steering pump is driven by an elastic ribbed V-belt.
- The ribbed V-belt itself is a closed belt that is comprised of various materials.
- It is flexible in the longitudinal direction and can be twisted when not installed – however, it is extremely stable compared to tensile load and can withstand great forces without stretching out.
- The ribbed V-belt is installed in a way so that it is under tension – in order to be able to transfer the full power and to prevent a so-called "slipping". This is done by means of a belt tensioner. Thus, the ribbed V-belt is automatically pretensioned (over the entire operating lifetime) and maintenance-free.
- If the ribbed V-belt is overstretched or loose, the full power of the engine is no longer transferred.
- The alternator can no longer fully charge the battery for example or the water pump can no longer sufficiently cool the engine.
- If the ribbed V-belts break, the power transfer no longer happens – and the auxiliary equipment fails to continue to function.

### BENEFITS

**High capability, long operating life.** MINI uses specially developed open-flanked ribbed V-belts for the vehicle manufacture. The important characteristic is the perpendicularly positioned fibers to the direction of rotation in the ribbed V-belt substructure. This produces a high flexibility in the longitudinal direction with extreme cross-rigidity. This design is very resistant to abrasion at the same time: The operating life is increased – with higher performance capability at the same time.



# RIBBED V-BELTS

**Matched to the MINI engine power.** The load placed on a ribbed V-belt is determined by the power of the engine and the arrangement of the individual units driven by it. Ribbed V-belts are custom-made to match the power development. The required degree of maintenance-freedom is achieved specifically for ribbed V-belts.

**Maximum force to 2,000 N specifically for ribbed V-belts.** Through their special construction, the ribbed V-belts can transfer the power from even the strongest MINI power plants trouble-free and for a long time. In the maximum range, and especially for ribbed V-belts, the forces occurring are up to 2,000 N for up to 18,000 revolutions per minute.

## QUALITY ASSURANCE

**Original MINI Ribbed V-Belts undergo lifelong tests. Function, cord and fabric as well as the material mixture are precisely analysed and checked in this process.**

**Function check, dynamic.** Slip, strain, abrasion, vibrations, running-in, thermal behavior

**Function check, static.** Profiles/profile changes, angular strain, cross-rigidity, flexibility, overjump torque, shear strength

**Cord and fabric.** Breaking strength, elongation, shrinkage, shrinking force, thermal holding, adhesion, abrasion resistance, cord twisting/direction of rotation

**Material fatigue, dynamic.** Cord fatigue, flexural rigidity, operating lifetime

**Material fatigue, static.** Tear strength/elongation, hardness, deformation under pressure, tear resistance, abrasion, heat/coldness holding, ozone resistance, swelling resistance, cross stiffness, media durability

## MAIN BENEFITS

- Open flanked ribbed V-belts
- High-performance, longer operating life
- Maintenance-free
- Matched to the MINI engine power
- Maximum force up to 2,000 N specifically for ribbed V-belts
- Long, trouble-free transfer of power even with strong forces
- Quality assurance through a multitude of tests and test criteria