

Why are urethane blades used?

Polyurethane—or urethane—is a combination of two chemical compounds. It was first developed as a replacement for rubber at the beginning of World War II. By changing the component ingredients in the urethane formula and varying the durometer—or hardness—of the product, urethane has been a material of choice for conveyor belt cleaner blades. The primary reason is urethane's compatibility with mechanical splices used on the belts. When encountering a mechanical splice during operation, urethane blades are forgiving. The splice is not damaged and the blade provides acceptable cleaning performance.

Are all urethanes the same?

- **Most definitely not!** The type of raw materials and the “pour,” or the way the compounds are formulated, all affect the blade's effectiveness.
- Errors during the pour, including incorrect mixing ratios, mold release contamination, humidity and the process temperature all influence the qualities of the urethane and the resulting characteristics of the blades made from that urethane.
- The proprietary formulation we use ensures a urethane with an optimal durometer rating to provide efficient cleaning as well as abrasion resistance that adds significantly to the wear life—even in demanding applications—while still remaining compatible with belt splices.
- And independent testing has shown that a urethane formulated specifically for superior abrasion resistance offers 25 to 35% longer wear life compared to other formulations.

How to choose a urethane blade.

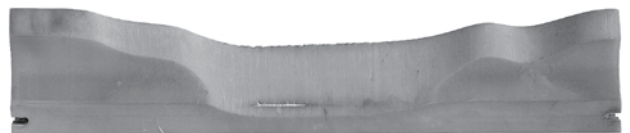
Look for blades that offer:

- Complete compatibility with mechanical splices—gliding over the splice and sacrificing itself to protect the splice if needed—with minimal cleaning disruption.
- Best-in-class cleaning efficiency.
- A longer useful life compared to other urethane blades.



Where to use urethane blades.

- Traditionally urethane blades have been used in precleaner applications—specifically on the head pulley—where the belt is held flat and has little opportunity to “give” should a problem arise.
- They can also be used effectively in secondary cleaner applications for water removal.
- The aggregate industry typically uses mechanical fasteners on belts moving highly abrasive materials. This is an ideal application for a urethane blade that offers complete compatibility and greater wear life.



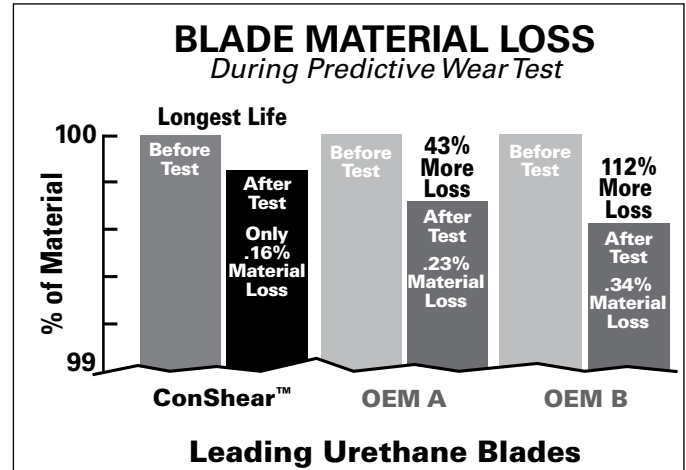
Less advanced urethane formulations result in blades that experience quicker wear and provide less-efficient cleaning.

Urethane Blades

Proprietary formulation equals better performing urethane.

To evaluate the wear characteristics of various urethanes we subjected the material used in ConShear™ blades, as well as the materials used in other OEM blades, to standard ASTM tribology testing procedures at a third-party testing lab.

This chart shows comparative test results for the material in ConShear, as well as sample materials currently used by other manufacturers. Actual grams lost during testing are expressed as a percentage.



Choosing the best urethane blade.

There are many things to consider when choosing a urethane blade:

- As tests prove, the material used in ConShear blades is superior to competitive blade materials, outlasting others by 25% to 35% in real world applications. That means a reduced wear rate for a longer useful life. This slower wear also means less blade retensioning maintenance is needed.
- And ConShear features a “faceted profile” that sets it apart from ordinary solid blades because it renews its edge, for optimal cleaning performance, every time wear reaches each new facet in the blade.
- In addition, ConShear blades are easy to install, fit Flexco cleaners and most OEM cleaners, and offer complete compatibility with mechanical fasteners.

