



We keep the world rolling.
No flats, smoother ride, more protection.

TyrFil™
A **CARLISLE** BRAND

VALUE PROPOSITION

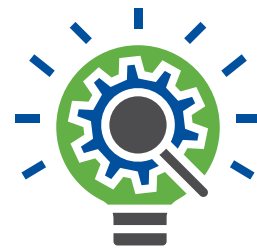
Carlisle TyrFil provides material, equipment, and technical support that ensures our customers have the most innovative, safe, and environmentally responsible flatproofing solutions.

Carlisle TyrFil has been providing flatproofing solutions for nearly 50 years. We currently provide over 100 million pounds of TyrFil flatproofing annually while offering service and support at competitive prices, including:



Professional and Experienced Sales & Customer Service Teams

Offer the correct product per application and are empowered to resolve problems quickly.



PhD Chemists and Quality R&D Teams

Ensuring consistent product quality and innovative formulations needed to meet future tire flatproofing needs.



Global Technical Service Resources

Ensuring that customers' equipment runs efficiently and without downtime, and their personnel are properly trained.



Multiple Global Manufacturing Locations

To minimize freight costs, support customers' global expansion, and address emergency preparedness concerns.

WHO WE ARE

Carlisle TyrFil is the leading global supplier of polyurethane tire fill and productivity technologies for off-the-road (OTR) equipment tires, OEM and aftermarket – providing superior product performance and value. All of our product brands are formulated to improve safety and increase productivity in demanding OTR applications where operating equipment reliability is critical.

In 1971, TyrFil, the world's first polyurethane tire fill material intended to flatproof tires, was invented. Today, TyrFil flatproofing is leading the global polyurethane tire fill market and can be found in over 65 countries. As the global leader, Carlisle TyrFil will continuously invest in R&D to develop innovative products that not only flatproof tires, but also promote operator safety and sustainability.

With more than 500 years of combined tire fill experience, no other tire flatproofing company in the industry can match our level of innovation, product offering, or technical support. Since 1971, our legacy and current facilities in California, Tennessee, Ohio, Germany, and China have processed over 1 billion pounds. The Berea, OH manufacturing facility has been issued a certificate of registration by Perry Johnson Registrars, Inc. for conformance to the ISO 9001:2015 international standard.

Carlisle TyrFil stands alone in the industry as the one global tire fill provider that seamlessly integrates international manufacturing, technical service, and sales support capabilities all under a single supply chain management umbrella.

In 2017, TyrFil became a brand of Carlisle Construction Materials (CCM), a wholly owned subsidiary of Carlisle Companies (NYSE: CSL). CCM is a diversified manufacturer and supplier of premium building products and related technologies for the commercial and residential construction markets. With over 100 years of success, Carlisle Companies is a diversified, global portfolio of niche brands and businesses that provide highly engineered products and solutions. Carlisle Companies combine a unique management style of decentralization, entrepreneurial spirit, active M&A, and a balanced approach to capital deployment, all with a culture of continuous improvement as embodied in the Carlisle Operating System.



TYRFIL FLATPROOFING

TyrFil is a polyurethane liquid that is pumped into pneumatic tires to replace air with a resilient, synthetic elastomer core that eliminates dangerous and costly tire flats on off-the-road (OTR) equipment. Even in the most hazardous environments, tires filled with TyrFil will never go flat. Despite cuts and punctures, filled tires will keep performing – increasing productivity and eliminating costly downtime for field operators.

The fact that polyurethane-filled tires work with a wide variety of tread patterns and tire constructions allows for greater flexibility in various applications. The material can be used in any tire with a sound casing and is able to sustain tire pressure and footprint shape. Also, polyurethane tire fill comes in a variety of durometers so the type of fill can closely fit the application – from a softer fill for comfort and deflection, to a harder fill for slow moving equipment with high pressure requirements.

TyrFil offers the smoothest and safest flatproofed ride for thousands of demanding OTR applications, including the construction, waste management, mining, municipality, military, and rental equipment markets.



FLATPROOFING SOLUTIONS FOR ALL TYPES OF OTR CONDITIONS!

TyrFil Flatproofing is available in multiple durometers and formulations specific to the application. Durometer is used to describe a material's rating on the hardness scale. Higher numbers on the durometer scale indicate a greater resistance to indentation, and thus harder materials. Lower numbers indicate less resistance and softer materials.

TyrFil Flex – Better Than Air-Ride

(10 durometer) - has the lowest durometer for maximum deflection and less Solid Shock. It is the fill of choice for skid steer manufacturers.

TyrFil Utility – All Purpose Performance with Less Solid Shock

(20 durometer) - has a soft ride and ample deflection in more demanding applications. It is ideal for radials in non-extreme applications.

TyrFil Pro – Our Most Popular General Purpose Material

(30 durometer) – a general purpose material for use in 90% of tire fill applications.

TyrFil Premium – When the Application Calls for Occasional Extreme Conditions

(30 durometer) – provides above standard heat dissipation for longer runs and optimum performance.

TyrFil Ultra – When the Environment is Extreme

(30 durometer) – provides the greatest heat dissipation qualities. It is ideal for severe applications such as underground mining where heat and load are extreme.

TyrFil HeviDuty – For Slow Speeds / Heavy Loads

(55 durometer) – provides added durability in high load applications with minimal tire deflection.



TLC Tire & Rim Protection conditions the wheel and maintains cooler tire operating temperatures. The liquid is added to the tire air chamber and coats the inside of the rims to provide rust protection. Continuous vapor dispersion protects wheels from rust even while the tire is not in motion. TLC is a non-toxic, non-flammable, and non-hazardous formula.

The bright Neon Red color allows for easy identification of an extremely slow leak in a cracked wheel to help prevent catastrophic failure and it offers these additional benefits:

- Protects against rim corrosion
- Easier tire removal from rims
- Reduces downtime
- Reduces operating costs

No matter what the average operating ambient temperature, there is a TLC product specifically formulated to perform from lows of -40°F to +20°F (-40°C to -6°C).



ReSeal is a cost-effective and non-hazardous industrial strength tire sealant made in the USA. It offers lightweight tire protection by sealing punctures up to ½" when your equipment is exposed to harsh conditions and it has the following additional benefits:

- Lowers the risk of costly damage to expensive or hard-to-find tires
- Reduces the risk of flat tires in remote locations
- Maximizes productivity while minimizing operating costs
- Protects wheels and rims against corrosion

ReSeal is the only tire sealant on the market that contains DuPont™ Kevlar® fibers. Kevlar is a durable, high tenacity fiber that is 5X stronger than steel and used in bulletproof vests.

ReSeal is a perfect fit for many off-road tire applications including but not limited to mining operations, agriculture, construction, ground support, all-terrain, landscaping, and waste management.





TYRFIL OFFERS A SMOOTHER, SAFER AND MORE COMFORTABLE FLATPROOFED RIDE.

Comfort

No More Solid Shock

The greatest advantage of polyurethane-filled pneumatic tires over other flat-free options, including solid aperture tires, is the smoother ride as a result of a substantially lower G-force transmission. In 2016, multiple tests confirmed that TyrFil transfers significantly less G-force than solid aperture tires. The harsh impact of G-force vibration transmission to heavy industrial vehicle operators and their equipment from solid aperture tires is known in the industry as SOLID SHOCK.

Not only is Solid Shock a major source of wear and tear on machines, but it is also a leading cause of operator injury. TyrFil is the only shock absorbing, flatproofing solution.

Visit NoMoreSolidShock.com to learn more.



Safety

TyrFil increases traction and stability PLUS eliminates tire blowouts!

Traction

Due to the wide range of tread patterns, rubber compounds, and polyurethane hardness, filled-pneumatic tires have better traction over a wider variety of surfaces and terrains compared to solid aperture tires.

Stability

Filling a pneumatic tire with polyurethane adds weight and stability to equipment. Lowering the CoG will provide increased vehicle stability, lessen the risk of rollover in extreme situations, and in most cases, increase lateral grip.

Eliminates Tire Blowouts

TyrFil replaces all of the air in an OTR tire, protecting it against air-filled tire explosions.



TyrFil - OEM Approved



TYRFIL FLATPROOFING THE INDUSTRY STANDARD

We are proud to be the proven supplier to the world's top equipment manufacturers. Carlisle TyrFil has the most OEM tire fill approvals in the industry.

TRUSTED FLATPROOFING SOLUTIONS TESTED AND PROVEN ON THE BATTLEFIELD

Carlisle TyrFil is proud to supply our military and armed forces with the LEADING life-saving NO FLAT Technology – TyrFil RePneuTV.

- Bulletproof, NO FLAT tire performance
- Shrapnel/battle debris puncture resistant
- Prevents catastrophic tire blowouts
- Mitigates IED blasts



GLOBAL TECHNICAL SUPPORT



Certified Dealer Network

Carlisle TyrFil has partnered with our Dealer Network to ensure the highest standard of tire fill processing methods are performed and dealer sales personnel are trained on offering the right product per application.

With over 500-plus years combined tire fill experience, our sales and technical support teams work closely with our dealers to solve flat tire problems. We are committed to eliminating flat tires, reducing downtime, and promoting safety.



Global Support Team

Carlisle TyrFil is the only polyurethane tire fill manufacturer with a Global On-Site Technical Support Team – 24-hour access – to ensure our customers' equipment runs efficiently without downtime and that their personnel are properly trained.



TyrFil Equipment

Carlisle TyrFil offers proven pumping equipment technology – over 100MM pounds pumped annually. Our TyrFil equipment line includes the virgin tire fill pump and the recycling systems: Green Machine, AutoFil, and Belt Drive. The AutoFil Recycler System is the only patented tire fill system on the market that can recycle oil-based tire fill and the AutoFil GenII is the only technology that can recycle used oil and crumb rubber based materials.

Carlisle TyrFil's R&D is committed to developing even more efficient and sustainable pumping innovations.



Safety & Training

Safety is our number one priority. Tire flatproofing is a precision process and should only be performed by a Carlisle TyrFil Certified Technician. Our knowledgeable Global Technical Support Team will provide flatproofing technician training and assist with questions relating to safe operating procedures. An online resource database to promote safety in our customers' tire fill processing rooms is available on www.CarlisleTyrFil.com.

GLOBAL SALES AND MARKETING



TyrFil University

TyrFil University is just one more way that we actively help our dealer network grow their tire fill business. TyrFil University is a comprehensive 2-hour interactive sales training workshop. This workshop is specifically designed to give our dealers' sales teams the knowledge and confidence to successfully close the TyrFil Flatproofing Sale.

Sales teams who have completed TyrFil University have consistently averaged as high as 40% to 65% increased annual tire fill sales.



Sales & Marketing Programs

Carlisle TyrFil has implemented world-class sales and marketing programs and tools to support our global dealer network. Our experienced Global Sales team conducts joint end-user sales calls and provides tradeshow and open house support.

We also invest heavily in international branding campaigns and lead generation tools to uncover additional new tire flatproofing opportunities for our dealer network. We truly understand that a solid partnership benefits both parties involved.



CarlisleTyrFil.com

The Carlisle TyrFil website provides additional tools to support our Dealer Network. The website features a video library, literature library, case studies, industry and company news, safe operating procedures, weight estimator tool, profit analysis tool, and more.



NoMoreSolidShock.com

This is a resource and information portal on the harmful effects of excessive G-force transmission from solid aperture tires, commonly known in the industry as Solid Shock. This portal features scientific data, testing results, and videos to support the advantages of using polyurethane tire fill over solid aperture tires.

COMMITMENT TO SUSTAINABILITY

Carlisle TyrFil is committed to investing in R&D which supports the sustainability of our environment.

As the industry leader in tire flatproofing solutions for nearly 50 years, Carlisle TyrFil has made providing environmentally supportive products a long-term strategic business priority. As a zero waste, zero emission manufacturer, Carlisle TyrFil has proved that innovation and sustainability can coexist and become a competitive advantage.

During the past decade, Carlisle TyrFil has introduced next generation technology that significantly reduces the usages of oil, petrochemicals, toxic metals, and other environmentally harmful compounds. Carlisle TyrFil's sustainability initiatives have resulted in safer manufacturing environments for our employees and our customers.

One Tote, One Tree

We at Carlisle TyrFil realize that there is only so much we can accomplish on our own and this is why we have strategically combined our success with our customers' by partnering with American Forests to create the One Tote, One Tree program. This program plants a new tree for every tote of product purchased by our customers. As of 2020, we have planted more than 200,000 trees.



For additional information on our sustainability initiatives and the One Tote, One Tree program, please visit www.onetoteonetree.org.



CARLISLE TYRFIL IS COMMITTED TO PRODUCING ENVIRONMENTALLY SUPPORTIVE TYRFIL PRODUCTS AND TECHNOLOGIES.

Recycling Processing Equipment

TyrFil is the only flatproofing solution with a comprehensive recycling equipment line with 24-hour global technical support. The TyrFil Recycling Technology mixes virgin TyrFil with either used tire flatproofing, crumb rubber, or even previously mixed materials, eliminating the environmental impact of sending used polyurethane and used rubber to the landfill. By the OE sector using the TyrFil Recycling Technology with TyrFil EcoFil and recycled material, the use of petrochemicals (including oil) is even more significantly decreased – less than 25% of the petrochemicals that have been used in traditional tire flatproofing applications.

TyrFil Recycling Technology significantly reduces the environmental impact of traditional tire flatproofing by:



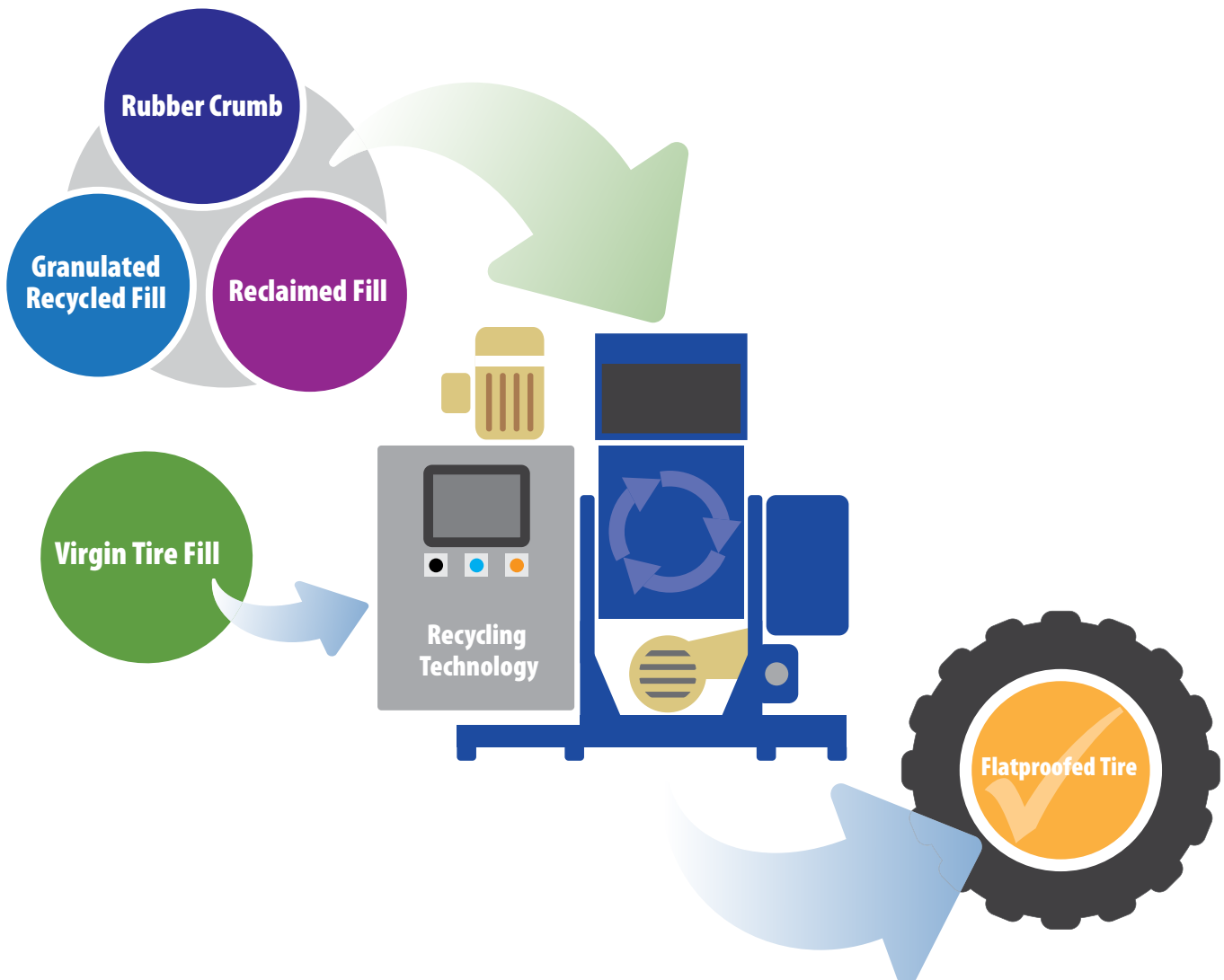
Recycling and using up to 65% post-consumer tire fill



Keeping used tire fill out of landfills and eliminating landfill disposal fees



Eliminating up to 65% of the petrochemicals (including oil) normally required to fill an OTR tire



Visit www.CarlisleTyrFil.com for specs, weight charts, and more!

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Carlisle TyrFil

140 Sheldon Road, Berea, OH 44017 | (800) 821-4147 | www.CarlisleTyrFil.com | contact@carlisletyrfil.com

