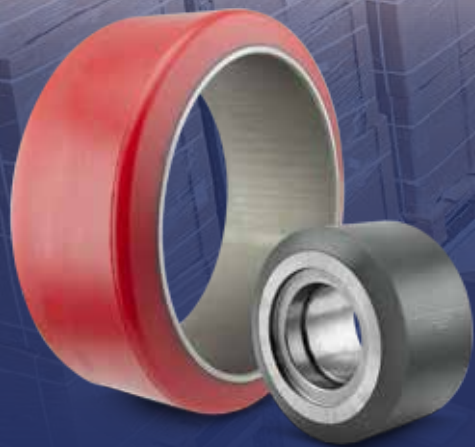




**Every fork truck has an application,
& every application has a tire & wheel.**

What tires & wheels fit your application?



The most reliable polyurethane compounds are remarkably the most cost effective solution!

Universal Usage



Material Handling Application Specific Compounds

The Universal Usage Specialist

Cushothane® Load Wheels & Cushothane® EZ™ Tires

Major issues

- Customers often use over-specified products resulting in poor cost efficiency.
 - Walkie Pallet trucks experience only medium weight and walking speeds. This makes heavy load and high speed compounds unnecessary for tires and wheels.
- Customers using an under-specified product can cause early failure and short usage life.
 - Although the drive tire used in small warehouses or clean manufacturing experiences little load and speed, the effect of acceleration and braking still wears the tire. Using a low quality polyurethane or standard rubber tire could result in unnecessary tire replacement cost and maintenance spending.

Solutions

- Cushothane® load wheels 95A and Cushothane® EZ™ 85A tires.

Tires			Load wheels	
CL-I	CL-II	CL-III	CL-II	CL-III
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Condition

- Universal usage is 80% of the material handling application.
- Examples of universal usage are mostly found in grocery stores, big box stores (not their DC), clean manufacturing and small clean warehouses.

“As vendor of choice, we provide technical excellence to give our customers a competitive advantage.”



When cold temperatures or
wet floors are an issue,
we have you covered.

Cold/Wet Storage



Material Handling Application Specific Compounds



The Cold or Wet Storage Specialist

Cushothane® EZ™

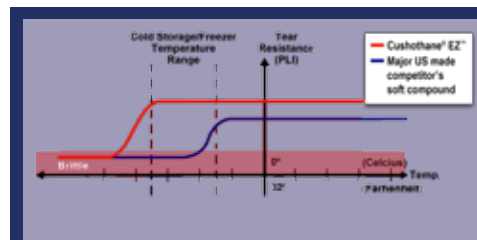
Major issues

- Many Polyurethanes have a relatively high glass transition temperature and many cold storage facilities maintain temperatures approaching this level.
- As the Polyurethane reaches the glass transition temperature it will harden - causing the tire to lose traction and spin, increase the braking distance and accelerating chunking.

Solutions

- Use Specialty Polyurethane that has a significantly lower glass transition temperature.
- Cushothane® EZ™ 85A is our compound of choice in this application for both tires & load wheels.
- Grooving and siping will provide better traction for tires when used in the presence of water/liquid.

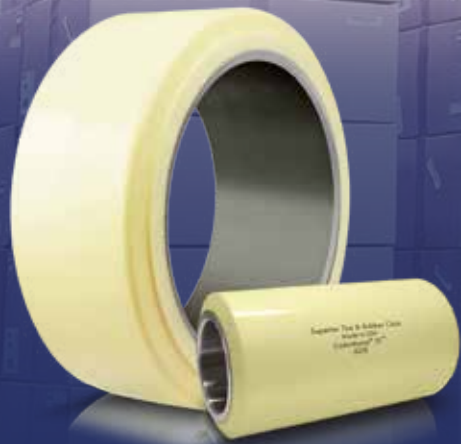
Tires			Load wheels	
CL-I	CL-II	CL-III	CL-II	CL-III
✓	✓	✓	✓	✓



Condition

- At critical low temperature, polyurethane can reach its glass transition point and the hardness + brittleness increase exponentially.

"As vendor of choice, we provide technical excellence to give our customers a competitive advantage."

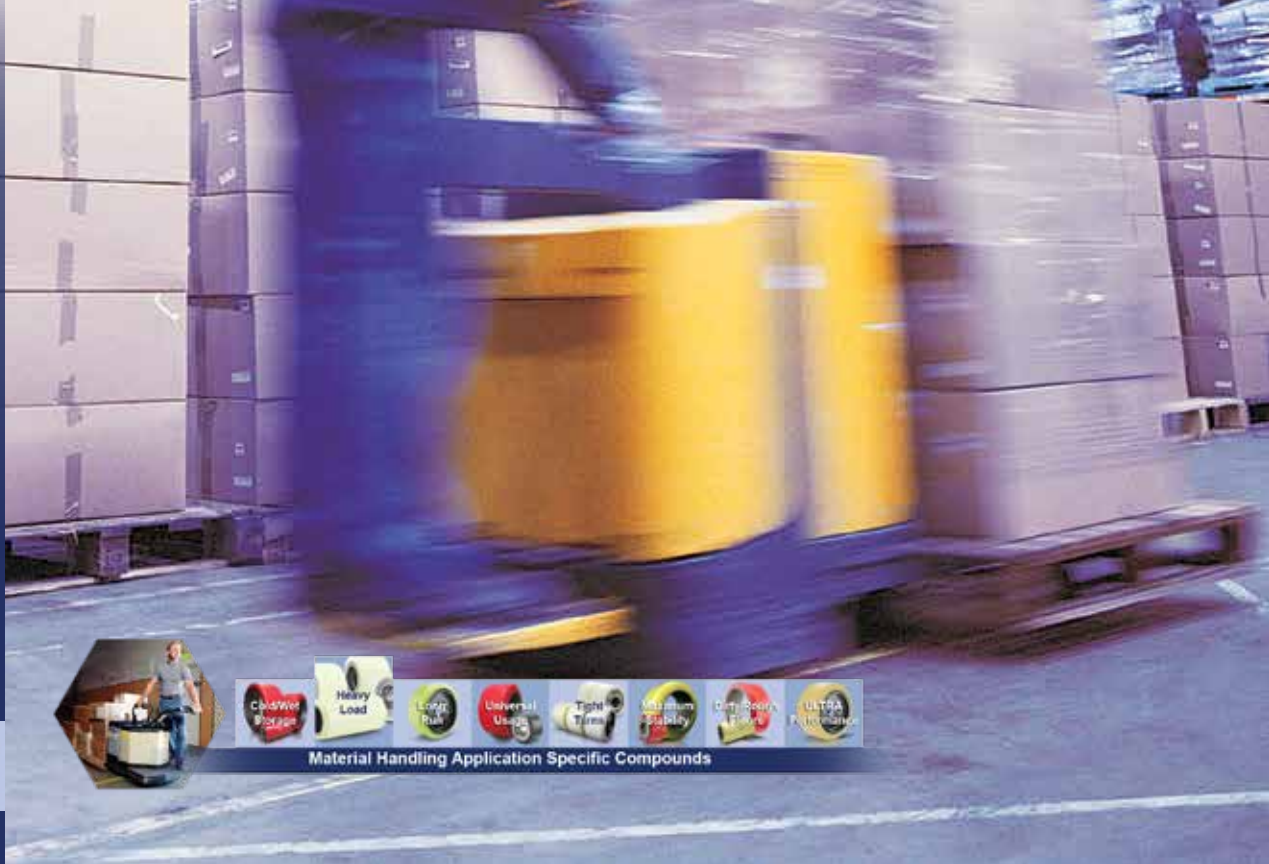


Tackle your heaviest
load with confidence.
We'll guarantee it.

Heavy Loads



Material Handling Application Specific Compounds



The Heavy Load Specialist

Cushothane® XL™

Major issues

- Heavy cargo loads create flexing of the poly and strain between the poly compound and the bond.
 - Just like kneading pizza dough – flexed material heats up. Heat inside the poly will keep accumulating from constant usage (kneading), until reaching the melt down temperature. The polyurethane mass will become liquid and destroyed.
 - Under high speeds the bond between poly and steel gets repeatedly stressed. If the bond strength is weak, it can be pulled away from the steel resulting in bond failure.

Solutions

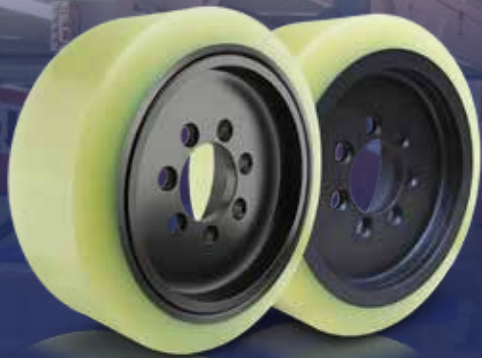
- Use a higher dynamic compound that generates less heat and has a higher melt down temperature.
- Strengthen the bond and use relatively harder poly to limit material movement in the load wheel.
- Cushothane® XL™ 93A hardness for tires and 97A hardness for load wheels with XL³™ bonding.

Tires			Load wheels	
CL-I	CL-II	CL-III	CL-II	CL-III
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Condition

- When load wheels and CL-III tires are subject to heavy cargo weight (mostly closer to maximum load of the truck) constantly for a prolonged period of time and excessive heat is generated.

“As vendor of choice, we provide technical excellence to give our customers a competitive advantage.”



Failing, melting tires
causing downtime?

We have the solution to get
you running Faster and Longer.

Long Runs



Material Handling Application Specific Compounds

The Long Empty Run Specialist

Cushothane® XL-AC™

Major issues

- Some CL-I and CL-II trucks are designed with a counterbalance weight located on top of the steer (CL-I) or drive (CL-II) tires. Without cargo (empty truck) to redistribute this weight, the counterbalance mass is carried directly by the drive tire.
- If a truck is empty or has a long distance to travel it will operate at a much higher speed.
- A combination of heavy load and high speed causes the compound to heat up. The long operating distance pushes the tire to run continuously without time to cool down – eventually melting the polyurethane.

Solutions

- Use a high dynamic compound (low rolling resistance) that won't generate heat beyond the melting point of the compound.
- Cushothane® XL-AC™ for CL-I steer or CL-II drive tires.

Tires			Load wheels	
CL-I	CL-II	CL-III	CL-II	CL-III
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Condition

- Some operations require the truck to run without cargo over a long distance at high speeds.

“As vendor of choice, we provide technical excellence to give our customers a competitive advantage.”



Don't let Tight Turns and
Frequent Cornering cause
unwanted wear and coning.

Tight Turn - Frequent Cornering



Material Handling Application Specific Compounds

*The Frequent Tight Turning Specialist for your rider
pallet trucks.*

Dual and Triple Wheel Assemblies

Major issues

- During cornering, the outside of the wheel tries to turn faster to cover a longer traveling distance while the inner side of the wheel will try to turn at the slower speed. This fight between the two sides causes the wheel to skid, scuff and wear on one side more than another.
- Meanwhile, as a result of the abrasion, heat is being generated – possibly leading to load wheel failure.

Solutions

- Use a Dual or Triple wheel options that allow the outside and inside wheels to turn at different speeds.
- Dual wheels would fit best for tandem or short load wheels (5" or less wide original width). Triple wheels would fit best for single long wheels (5.91-6.5" original width).

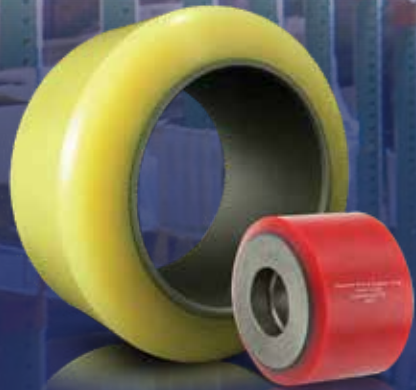
Tires			Load wheels	
CL-I	CL-II	CL-III	CL-II	CL-III
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



Condition

- For some CL-III rider pallet truck usages, the truck may be subjected to frequent cornering especially in one direction.

"As vendor of choice, we provide technical excellence to give our customers a competitive advantage."



Maximize the efficiency by
gaining stability and confidence
on a high working platform.

Maximum Stability



Material Handling Application Specific Compounds

The Maximum Stability Specialist Duo in Orderpicker Trucks

Cushothane® EZ™ & Cushothane® XL-AcS™

Major issues

- The height of the operator's platform in order picker trucks magnifies the vibration and imperfections from the floor.
- Some tires and load wheels – especially harder compounds – can worsen the issue.

Solutions

- Use the softest compound that still satisfies the carrying capacity requirement.
- Cushothane® EZ™ 85A tires and load wheels for Orderpicker.
- Cushothane® XL-AcS™ 90A tires and Cushothane® EZ™ load wheels for Straddle Orderpicker and Furniture pickers.



Additional option

- SuperSmooth™ (Zero TIR) tire eliminates tire out of round, making the ride even more smooth and secure.

Tires

CL-I CL-II CL-III



Load wheels

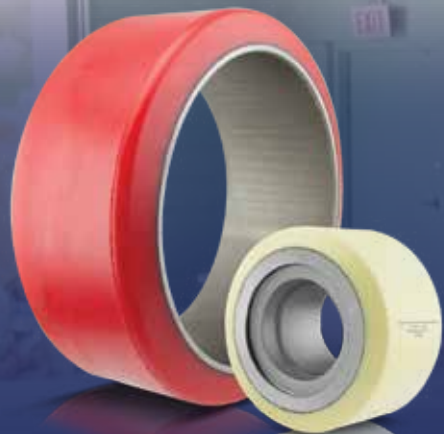
CL-II CL-III



Condition

- For Orderpicker – the operator rides the truck high on the elevated platform. Any imperfection in the floor may be transferred and magnified affecting operator comfort and safety.

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Isn't it time you found wheels
that can handle Rough floor
conditions?

Dirty Uneven Floors



Material Handling Application Specific Compounds

The Dirty Uneven Floor Specialist Duo

Cushothane® EZ™ Tires & Cushothane® XL™ Load Wheels

Major issues

- Sharp objects can cut through polyurethane and cause chunking, reducing the contact patch.
- A reduced contact patch increases stress on the material, accelerates chunking and in some cases causes material failure.
- Ride comfort is also reduced as the truck runs over debris.

Solutions

- Use a higher cut & tear compound in a load wheel – Cushothane® XL™ 97A.
- Use a higher cut & tear and softer material in a tire – Cushothane® EZ™ 85A.

Tires

CL-I CL-II CL-III



Load wheels

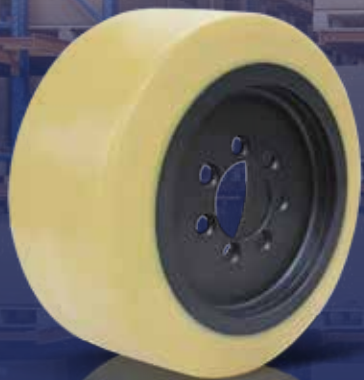
CL-II CL-III



Condition

- In some conditions especially in foundries or older facilities, the floor could be uneven, cracked and filled with debris.
- Uneven dock plates can create a sharp corner that cuts into the tire or wheel as the truck drives over it.

“As vendor of choice, we provide technical excellence to give our customers a competitive advantage.”



The final solution for the
worst case scenario.

ULTRA Performance



Material Handling Application Specific Compounds

The ULTRA Performance Application

Cushothane® ULTRA-ES™

Major issues

- Heavy loads, over duty and high speed cause polyurethane to flex resulting in heat generation. Buildup of this heat can result in material meltdown or debonding.
- Under normal duty operations, general braking and accelerating abrades and reduces poly tread. Increased duty drastically increases this wear rate making replacement even more frequent.
- Dirty floors allow for debris to be embedded into the tire material, cutting & tearing the surface of the material eventually leading to chunking and tire failure.

Solutions

- When everything else fails or requires a frequent replacement cycle - the most advanced compound, Cushothane® ULTRA-ES™ 93A is required.
- Cushothane® ULTRA-ES™ also provides significantly longer work life with the highest cut and tear resistance.

Tires			Load wheels	
CL-I	CL-II	CL-III	CL-II	CL-III
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Condition

- When a truck is operated under a combination of worst case scenarios, such as heavy loads, long runs, over duty, bad floor conditions or even blast freezers.

"As vendor of choice, we provide technical excellence to give our customers a competitive advantage."

Call us or visit www.SuperiorTire.com to find the best tire that fits your trucks application

ENGINEERING REVOLUTION™

SUPERIOR
TIRE & RUBBER CORP.
MATERIAL HANDLING COMPONENTS