

Versus Rubber,
Polyurethane has

Better:

Abrasion Resistance
Cut and Tear Resistance
Load-Bearing Capability
Wear Life

Potential For:

Complex Shapes
Colorability
Broader Hardness Range
Lower Cost, Low-Pressure Tooling
Lower Cost Molding vs. Metal Machining
Noise Reduction
Lower Product Cost

Versus Metal,
Polyurethane has

Better:

Abrasion Resistance
Impact Resistance
Flexibility
Resilience
Corrosion Resistance

Potential For:

Weight Reduction
Non-Conductive
Non-Sparking
Noise Reduction
Lower Cost vs. Machining
Lower Product Cost
Lower Cost, Low-Pressure Tooling

Versus Plastic,
Polyurethane has

Better:

Abrasion Resistance
Load-Bearing Capability
Impact Resistance
Elastic Memory
Resilience
Compression Set Resistance
Low Operating Temperature

Potential For:

Complex Shapes
Thin & Thick Sections
A Variable Coefficient of Friction
Noise Reduction
Lower Cost, Low-Pressure Tooling
Lower Cost Molding vs. Metal Machining
Lower Product Cost
Lower Cost, Low-Pressure Tooling



REDCO™
POLYURETHANE

A versatile material with a broad hardness range and incredible impact resistance.

Redco™ Polyurethane combines the toughness of metal while being lighter and quieter, able to be a cost-effective solution for a wide variety of applications.

REDUCES DOWNTIME

ABRASION RESISTANT

REDUCES NOISE

REDUCES IMPACT

MINIMIZE MAINTENANCE

OUTSTANDING DURABILITY



ISO 9001:2015 CERTIFIED
FABRICATION AND MACHINING SERVICES
IN EVERY LOCATION



Our custom plastic and rubber fabrication shops are fully equipped and we have trained and experienced machinists to produce quality parts from many types of plastic and rubber materials.

From intricate parts to simple cut-to-size projects, we can help you select the most optimal material for your application and produce the final parts in a timely manner.

We can design, mold, machine, weld, route, and drill to produce prototypes, short runs, production runs or maintenance parts. Save time and money by utilizing our experienced fabricators and plastic and rubber specialists.



ASK
AN
EXPERT

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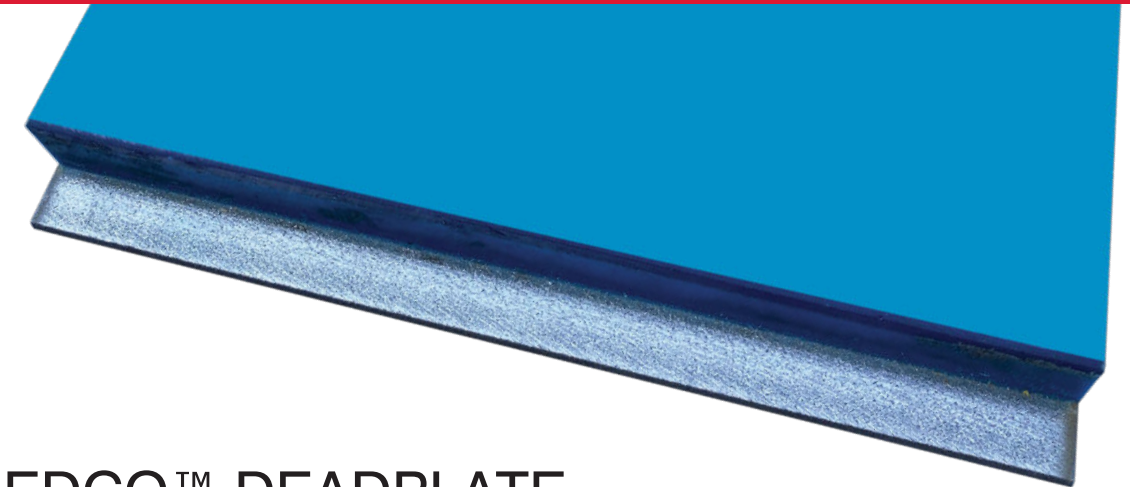
Redco™ Polyurethane offers strength and durability far beyond the range of most rubbers and plastics, combining the toughness of metal with the elasticity of rubber. It has the ability to withstand severe abuse which saves downtime, replacement costs and minimizes maintenance.

Redco™ Polyurethane is available in a broad range of hardnesses, from eraser soft to bowling ball hard. We customize the material to specific applications without fillers or plasticizers.

We can mold, machine and fabricate a wide range of high quality, custom components that meet high tolerances and strict specifications. With our extensive experience we can solve many application frustrations related to wear, noise, impact or shock.

Cast polyurethanes are tough, strong rubber-like polymers that can retain their original shape and properties for a long service life. Cost effective and dependable, these elastomers combine some of the performance advantages of engineered plastics and metals along with the resiliency and flexibility of rubber.

- Many Custom Molded Shapes
- Outstanding Abrasion Resistance
- High Load Bearing Capability
- Exceptional Impact Strength
- Low Coefficient of Friction
- High Flexural Properties
- Oil & Solvent Resistant
- Resistant to Cold
- Heat Stabilized
- UV Stabilized
- Non Marking
- FDA Compliant Formulations



REDCO™ DEADPLATE

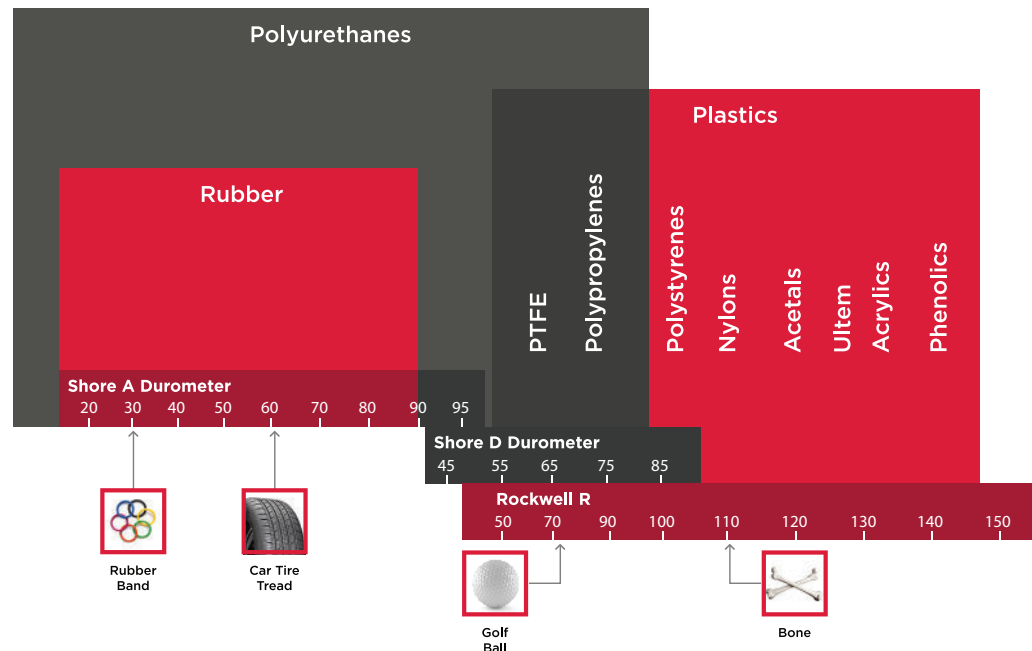
Redco™ Deadplate is a high performance, energy dissipative grade of polyurethane designed for applications where extreme impact absorption is required. Redco™ Deadplate converts up to 90% of impact energy into heat, which dissipates through the material.

DUROMETER HARDNESS RATING: 52-57A STANDARD COLOR: Light Blue

FEATURES: Strong, Exceptional Bond to Metal, Energy Dissipative, Reduces Noise, Impact Resistant

TYPICAL APPLICATIONS:
Impact and shock pads, transfer plates, load-bars, cushion pads, dissipator channel, etc.

HARDNESS COMPARISON CHART



REDCO™ 5500

Redco™ 5500 is a pliable urethane similar to a soft rubber, but more resilient, with a balanced range of properties including excellent gripping characteristics.

DUROMETER HARDNESS RATING: 55A STANDARD COLOR: Red

FEATURES: Strong, Oil Resistant, Abrasion Resistant, Impact Resistant

TYPICAL APPLICATIONS:
Dolly wheel tires, carry over tires, feed wheels, roll covers, shock and vibration pads, rollers, carry over wheels, bumpers, wheels, flexible parts, impact pads, anti-vibration parts, wipers, etc.

REDCO™ 6000

This unique formulation stands up to abrasion and is resistant to deterioration in impingement applications. Redco™ 6000 also performs well as a shock and vibration buffer while maintaining flexibility.

DUROMETER HARDNESS RATING: 60A STANDARD COLOR: Black

FEATURES: Strong, Oil Resistant, Abrasion Resistant, Impact Resistant

TYPICAL APPLICATIONS:

Impact wear liners, wear liners, roll covers, shock and vibration pads, rollers, carry over wheels, bumpers, wheels, flexible parts, impact pads, anti-vibration parts, wipers, etc.

REDCO™ ULTRA 66

With outstanding solvent and oil resistance, Redco™ Ultra 66 is designed for applications where very soft, elastic, rubber-like properties are required in combination with a low-compression set and extreme toughness.

DUROMETER HARDNESS RATING: 60-65A STANDARD COLOR: Black

FEATURES: Cut & Tear Resistant, Corrosion Resistant, Strong, Impact Resistant, Elasticity, Oil Resistant

TYPICAL APPLICATIONS:

Shaft seals, transmission gaskets, bumpers, pulley & roll covers, impact pads, wipers & squeegees, sorter parts, etc.

REDCO™ 7000

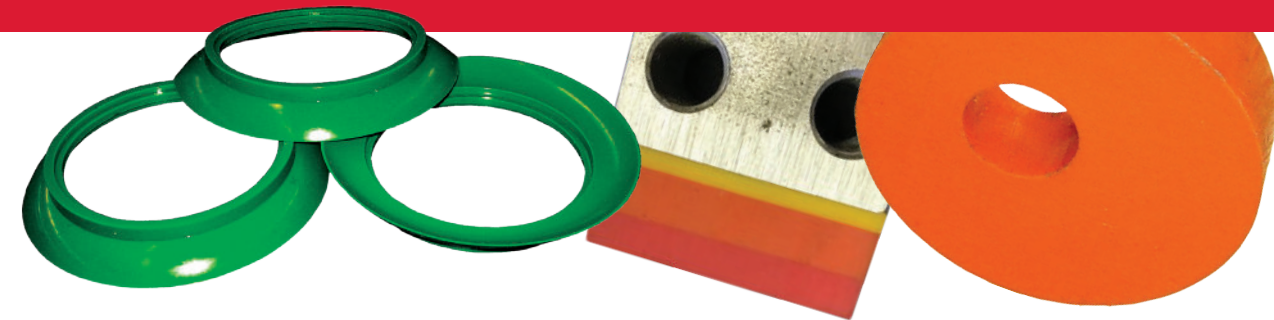
Redco™ 7000 offers high compression resistance and withstands heavier loads while maintaining gripping characteristics. Redco™ 7000 excels when bonded to steel as an impact pad or wheel cover.

DUROMETER HARDNESS RATING: 70A STANDARD COLOR: Green

FEATURES: Strong, Oil Resistant, Abrasion Resistant, Impact Resistant

TYPICAL APPLICATIONS:

Packaging system parts, feed system parts, shock pads, springs, seals, shock and vibration pads, washers, roll covers, rollers, carry over wheels, bumpers, wheels, impact pads



REDCO™ 8000

More pliable than harder urethanes, Redco™ 8000 possesses high shock and vibration tolerances resulting in a material that is effective in a variety of applications where overall toughness and resiliency is desired. Redco™ 8000 has the most balanced range of properties in the polyurethane family.

DUROMETER HARDNESS RATING: 80A STANDARD COLOR: Orange

FEATURES: Strong, Oil Resistant, Abrasion Resistant, Impact Resistant

TYPICAL APPLICATIONS:

Shock and vibration pads, roll covers, flex couplings, wear parts, impellers, gate valves, flotation cell parts, cable sheave liners, belt scrapers, seals, couplings, impact wear pads, liner plates, pump liners, carry over wheels, feed wheels, rollers, bumpers, wheels, impact pads,

REDCO™ 350

Redco™ 350 (85A) is a high-performance grade of polyurethane designed for applications where exceptional wear and abrasion resistance is required such as where sand, slurry, gravel, or dry-impingement is involved. Redco™ 350 is also specially formulated for use in sand & gravel and bulk material handling applications.

DUROMETER HARDNESS RATING: 85A STANDARD COLOR: Green

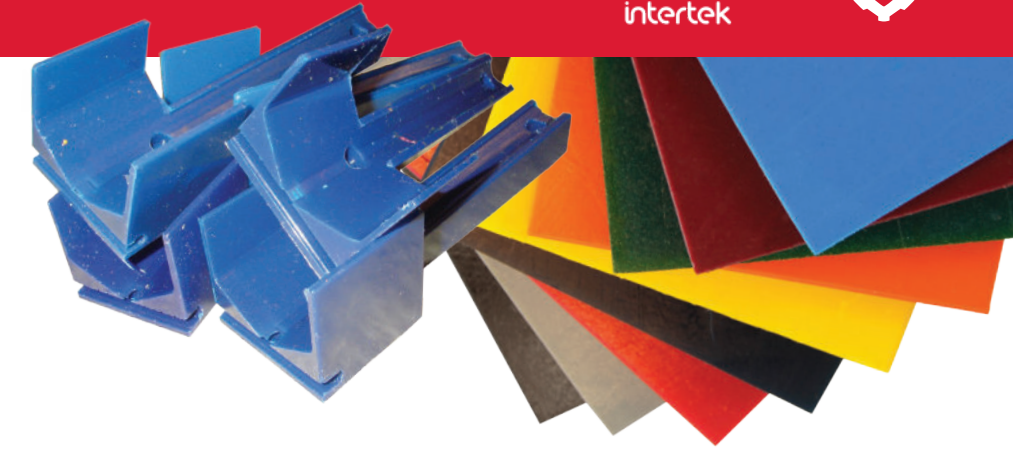
FEATURES: Weather Resistant, Cut & Tear Resistant, Impact Resistant, Elasticity

TYPICAL APPLICATIONS:

Abrasion parts, pump liners, piping, chute liners, belt scrapers, belt-skirting, seals & gaskets, etc.

NEED HELP CHOOSING WHICH MATERIAL IS OPTIMAL FOR YOUR APPLICATION? CALL US:

CUSTOM DESIGN AND TOOLING · CNC MACHINING · PLASTIC FABRICATION · WELDING · CUSTOM MOLDING



REDCO™ 430

Our most commonly used material, ideal for environments where high abrasion resistance is the primary concern. Redco™ 430 (90A) also offers superior impingement resistance.

DUROMETER HARDNESS RATING: 43D, 90A STANDARD COLOR: Yellow

FEATURES: Weather Resistant, Cut & Tear Resistant, Impact Resistant, Elasticity

TYPICAL APPLICATIONS:

Shock and vibration pads, roll covers, cylinder cushions, carriage bumpers, cable sheave liners, deflector plates, impact wear liners, belt scrapers, seals, couplings, washers, cones, impellers, stabilizers, wear slides, wheels & pulley lagging, protective chute liners, impact pads, wear liners, etc.

REDCO™ ULTRA 99

A premium material that performs exceptionally well in high-speed, highly abrasive applications. With its high durability, flexibility, and superior resistance to abrasion, Redco™ Ultra 99 can provide enhanced performance in extreme conditions.

DUROMETER HARDNESS RATING: 95A STANDARD COLOR: Black

FEATURES: Strong, Elasticity, Weather Resistant, Abrasion Resistant

TYPICAL APPLICATIONS:

Wheels, shock absorber pads, impact wear pads, anti-vibration parts

REDCO™ 500

An excellent shock absorber, Redco™ 500 combines the qualities of hard and softer urethanes with resistance to impact and wear. Redco™ 500 is able to provide strength and rigidity for angular profiles where softer urethanes would not hold up. It also has one of the best compression-sets for load bearing applications.

DUROMETER HARDNESS RATING: 50D, 95A STANDARD COLOR: Dark Blue

FEATURES: Weather Resistant, Cut & Tear Resistant, Impact Resistant, Elasticity

TYPICAL APPLICATIONS:

Shock pads, isolation pads, drive couplings and discs, belt scrapers, deflector plates, roll covers, seals, rollers, couplings, washers, impact wear pads, liner plates, pump liners, valve gates, sorter hooks, abrasion protectors, cutting anvils, load pads, seals & gaskets, wheels, mechanical parts, etc.

NEED HELP CHOOSING WHICH MATERIAL IS OPTIMAL FOR YOUR APPLICATION? CALL US:

REDCO™ 600

A high-performance material for wear applications in extreme cold weather. Redco™ 600 is able to hold its form under load and stress in structural applications. A strong choice where mechanical properties are required to be coupled with urethane's exceptional impact, wear and abrasion resistance.

DUROMETER HARDNESS RATING: 60D, 60R STANDARD COLOR: Black

FEATURES: Strong, Weather Resistant, Light, Impact Resistant

TYPICAL APPLICATIONS:

Forklift tires, dolly wheel tires, washers, wear slides, high impact/low temperature parts, slide pads, svi pads, wheels, etc.

REDCO™ 750

Redco™ 750 provides a long-lasting replacement for brass or bronze with molding capabilities that give precise results without machining. It is a proven solution for bearings. Redco™ 750 is a superior grade of polyurethane designed for applications where durable, strong properties are required along with exceptional impact, wear and abrasion resistance.

DUROMETER HARDNESS RATING: 75D, 90R STANDARD COLOR: Red

FEATURES: Strong, Weather Resistant, Light, Impact Resistant

TYPICAL APPLICATIONS:

Bearings, bushings, wear plates, channel, liners, seals, hanger bearings, sprockets, rollers, drive wheels, washers, flotation cell parts, carry over wheels, feed wheels, sorter hooks, wear slides, etc.

CUSTOM DESIGN AND TOOLING · CNC MACHINING · PLASTIC FABRICATION · WELDING · CUSTOM MOLDING



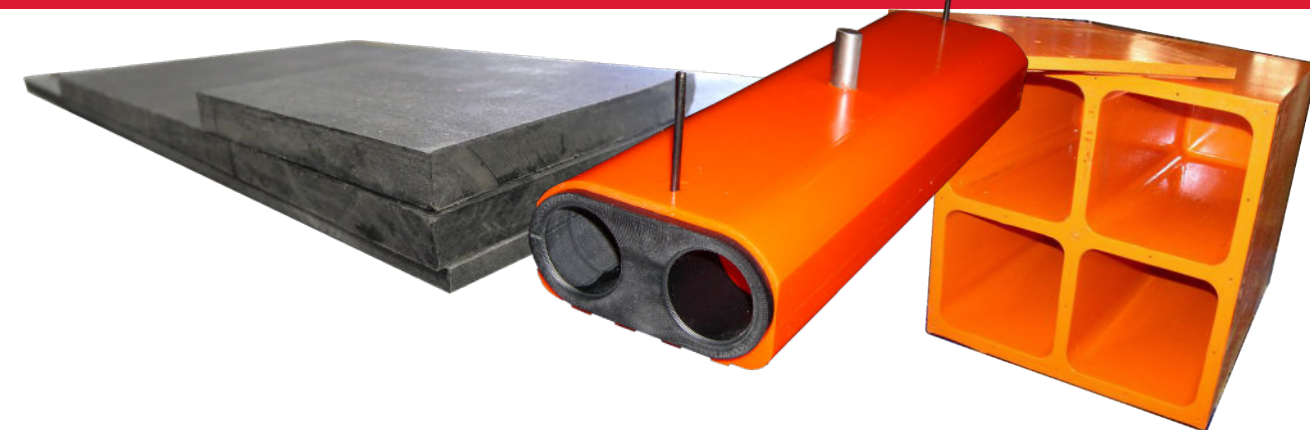
Softer Durometer

Harder Durometer

Tradename	ASTM	Redco™ Deadplate	Redco™ 5500	Redco™ 6000	Redco™ Ultra66	Redco™ 7000	Redco™ 8000	Redco™ 350	Redco™ 430	Redco™ Ultra99	Redco™ 500	Redco™ 600	Redco™ 750
Durometer	D2240	52 ± 5 (Shore A)	55A ± 5 (Shore A)	60 ± 5 (Shore A)	62 ± 5 (Shore A)	70 ± 5 (Shore A)	80 ± 5 (Shore A)	85 ± 5 (Shore A)	90 ± 5 (Shore A)	95 ± 5 (Shore A)	95 ± 5 (Shore A)	60 ± 5 (Shore D)	75 ± 5 (Shore D)
Standard Color		Light blue	Red	Black	Black	Green	Orange	Green	Yellow	Red	Blue	Black	Red
Specific Gravity	D792	1.24	1.13	1.21	1.16	1.21	1.22	1.25	1.07	1.14	1.13	1.1	1.13
Temperature Range °C (F)		-20°C to 40°C (-4°F to 104°F)	-10°C to 150°C (14°F to 302°F)	-10°C to 150°C (14°F to 302°F)	-60°C to 100°C (-76°F to 212°F)	-20°C to 150°C (-4°F to 302°F)	-20°C to 150°C (-4°F to 302°F)	-40°C to 100°C (-40°F to 212°F)	-40°C to 100°C (-40°F to 212°F)	-30°C to 160°C (-22°F to 320°F)	-40°C to 100°C (-40°F to 212°F)	-40°C to 100°C (-40°F to 212°F)	-40°C to 100°C (-40°F to 212°F)
Tensile Strength (PSI)	D412	3185	3300	3700	4400	5600	3800	6197	5150	7395	6500	7850	8500
100% Modulus (PSI)	D412	177	220	250	300	490	800	730	1100	1420	1800	3400	5900
200% Modulus (PSI)	D412	-	-	-	-	-	-	-	-	-	-	5250	6500
300% Modulus (PSI)	D412	288	320	410	500	940	1600	1266	1950	1715	4300	-	-
Elongation (%)	D412	660	720	630	480	510	420	660	460	600	380	285	205
Tear Strength, Die C (pli)	D624	133	180	210	190	310	400	497	500	595	700	755	1025
Split Tear (pli)	D-470	28	40	55	22	50	60	116	85	141	130	117	127
Rebound Resiliance (%)	D2632	4	54	43	30	34	30	32	50	71	40	46	63
Compression Set (%)	D395	6.3 (Method B)	31.6 (Method B)	39.6 (Method B)	6 (Method B)	25.5 (Method B)	29 (Method B)	25 (Method B)	28 (Method B)	46 (Method B)	36 (Method B)	4.8 (Method A)	1.8 (Method A)

The values above are based on averaged data and intended for reference and comparison purposes only. This data should NOT be used as the sole basis for design specifications or quality control. We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. Redwood Plastics and Rubber reserves the right to release new data sheets in replacement. For the most recent and specific technical information, contact our Sales team

Users are advised to make their own tests to determine the safety and suitability of each such material, product or product combination for their own purposes. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combination with other products. For most recent and most specific technical information, contact our Sales team.



INTRODUCTION

Our speciality grades are embedded with special additives that enable them to perform in extraordinary and high-intensive environments, conditions where standard or premium grades would fail.

Please connect with our sales team to learn more. We are also able to partner with you to find the right polyurethane material for your unique application.

REDCO™ SPS-2000

This material was developed to address the plastic contamination concerns of Kraft Pulp Mills. Redco™ SPS-2000 is a PULP SAFE polyurethane wear material that was specially developed for sawmills and planer mills that are supplying fiber to kraft pulp mills.

Redco™ SPS-2000 completely dissolves in the kraft cooking process with no possibility of pulp fiber contamination. Redco™ SPS-2000 possesses good wear characteristics, the lowest coefficient of friction of all urethanes, high dimensional stability, abrasion resistance, load and impact strength and is unaffected by most oils, greases and solvents. SPS-2000 can solve contamination concerns as well as wear.

DUROMETER HARDNESS RATING: 75D, 90R STANDARD COLOR: Grey

FEATURES: Increased Dimensional Stability, Abrasion Resistant, Impact Resistance, Oil & Solvent Resistant

TYPICAL APPLICATIONS:

Used in hundreds of applications in sawmills, planer mills, kraft pulp & paper mills.

REDCO™ VYPUR FRAS

Premium fire retardant and anti-static formulation designed for applications where exceptional wear and abrasion resistance is required due to shock, vibration and impact. Certified in accordance with MSHA IC-297.

DUROMETER HARDNESS RATING: Available from 75D - 85A STANDARD COLOR: Orange

FEATURES: Strong, Weather Resistant, Light, Impact Resistant

TYPICAL APPLICATIONS:

Pulleys, belt scrapers and wipers, skirtboards, transfer chute liners, bearings, bumpers, chain flights, sprockets, cable crossover pads, etc.

REDCO™ 750 SXL

Designed for use in shock, sliding, low temperature and gritty environments. Redco™ 750 SXL has excellent self lubricating characteristics which make it ideal for applications which may experience dry running periods. Serves very well as a low-maintenance bearing solution.

DUROMETER HARDNESS RATING: 75D, 90R STANDARD COLOR: Black

FEATURES: Strong, Weather Resistant, Light, Impact Resistant

TYPICAL APPLICATIONS:

Bearings, bushings, wear plates, channel, liners, seals, hanger bearings, washers, liners, flotation cell parts, retainers, idler bearings, etc.