

A nighttime photograph of a city skyline with several tall skyscrapers, some of which are under construction with visible cranes. In the foreground, there are light trails from moving vehicles on a road. A large, thick red diagonal line cuts across the image from the bottom left towards the top right. The word "Dynamex" is written in a large, white, italicized serif font, with a red swoosh underline that follows the curve of the red diagonal line.

*Dynamex*TM



BY REDWOOD PLASTICS AND RUBBER

WHY REDWOOD PLASTICS AND RUBBER?

There are many important reasons for replacing traditional materials with plastic and rubber.

- **Cost Effective Alternative to Traditional Materials**
- **Less Wear**
- **Higher Performance**
- **Less Abrasion**
- **Lower Lubrication & Maintenance**
- **Reduced Impact & Vibration**
- **Corrosion Resistant**
- **Improved Safety**
- **Lighter Weight**
- **Lower Material Cost**
- **Reduced Downtime**
- **Lower Maintenance Cost**
- **Reduced Noise**

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REDWOOD

PLASTICS AND RUBBER

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CAN **1.800.667.0999**

USA **1.866.733.2684**



Dynamex™ Plain Bearings

DYNAMEX™ Plain Bearing pads consist solely of virgin Natural Rubber (polyisoprene). These are available in various durometer ratings and shear moduli depending on the specification required. They may be used in bridge, railway, building and vibration isolation applications. Redwood Plastics and Rubber is able to supply materials which meet specification requirements for a number of different standards.



PRODUCT: Natural Rubber

COLOUR: Black

DURO: 60A and 55A (Other Formulations on Request)

FORMAT: Sheets & Cut-to-Size, Including Hole Patterns

CORE ADVANTAGES

- ▶ Hyperelastic material
- ▶ Ozone & weather resistant
- ▶ High load-bearing and compressive strength
- ▶ Great for low-temperature environments AASHTO compliant applications

CERTIFICATIONS/ APPROVALS

- ▶ Conforms to CAN/CSA, AASHTO, AREMA and OPSS

TYPICAL APPLICATIONS:

- ▶ Elastomeric Bridge Bearings
- ▶ Dynamic Spring Isolators
- ▶ High-rise Building Dampening Systems
- ▶ Water Tower Load Bearings
- ▶ Masonry pads
- ▶ Lighting standard pad seats
- ▶ Handrail bearing pads
- ▶ Pads between structural steel beams, girders, and columns
- ▶ Pads between bridges, roof beams and substructures
- ▶ Shock and vibration isolation
- ▶ Railway-tie pad applications



**Weather
Resistant**



**Energy
Dissipative**



Strong



Elasticity



**Ozone
Resistant**



Dynamex™ Laminated Bearings



Dynamex™ Laminated Bearings consist of elastomer material vulcanized to multiple internal steel shims. These bearing pads allow for more rotation and movement capabilities than plain bearing pads. Vertical load and rotations are accommodated through vertical deflection while horizontal movement is accommodated through shear deformation. Redwood's expertise in elastomers guarantees the best material choices for structural applications in both urban and arctic environments.



PRODUCT: Engineered Structurally Reinforced Bearing Rubber

COLOUR: Black

DURO: 60A (Other Formulations on Request)

DESIGNATION: NR, NAT

FORMAT: Custom-made Laminated Pads

CORE ADVANTAGES:

- ▶ Additional rotation and movement capabilities
- ▶ Optimized manufacturing process
- ▶ High quality vulcanized bond to shims and top/bottom plates
- ▶ Excellent bond strength
- ▶ Precise parallelism of internal shims

CERTIFICATIONS/ APPROVALS

- ▶ Conforms to OPSS, CAN/CSA and AASHTO



**Weather
Resistant**



**Energy
Dissipative**



**Structurally
Reinforced**



**High Load
Bearing**

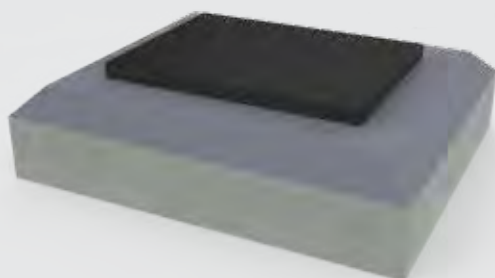


**Ozone
Resistant**



Dynamex™ LOAD+™

Dynamex™ LOAD+ fiber reinforced rubber pads are structural bearings with high stiffness. They are commonly used in applications involving higher load requirements and less rotational needs. Consisting of high-strength, weather resistant elastomers and vulcanized with synthetic reinforcing fibres, our pads are designed for structural projects with typical design loads of 2000psi.



PRODUCT: Engineered Structurally Reinforced Bearing Rubber

COLOUR: Black

DURO: 75 +/-5

DESIGNATION: ROF, Fibre Reinforced

FORMAT: Strips & Cut-to-size

CORE ADVANTAGES

- ▶ Evenly distributes vertical loads
- ▶ Allow horizontal and/or rotational movements to help accomodate movement
- ▶ Exceeds most design engineering specifications
- ▶ Reduces electrolytic action
- ▶ Reduces transmitted vibration and shock isolation
- ▶ High compressive loading capacity - up to 10,000 P.S.I.
- ▶ Can be bonded to PTFE

TYPICAL APPLICATIONS:

- ▶ Precast and prestressed concrete structures
- ▶ Pedestrian overpass & walkways
- ▶ Pads between bridge roof beams and substructures
- ▶ Masonry pads
- ▶ Structural steel connections
- ▶ Industrial load, shock and vibration isolation
- ▶ Machinery & equipment isolation
- ▶ Lighting standard seats
- ▶ Handrail mounting pads
- ▶ Railway tie pad applications



**Weather
Resistant**



**Energy
Dissipative**



**Structurally
Reinforced**



**High Load
Bearing**



**Ozone
Resistant**

Dynamex™ Slide Bearings



Dynamex™ Bearings have the option to include a PROTEF™ (PTFE) top layer which equips the bearing with a sliding surface. PTFE pads are specified in situations where high horizontal movements are present. A stainless steel layer which serves as a stiffener and a bonding substrate is typically required between the PTFE and elastomer.



PRODUCT: Engineered Structurally Reinforced Bearing Rubber

COLOUR: Black

DURO: 54D (PTFE), 60A (Elastomer)

DESIGNATION: Improved Steel Reinforced

FORMAT: PTFE Bonded or Custom Laminated Pad

CORE ADVANTAGES

- ▶ Allows for high horizontal movements
- ▶ Stainless steel layer is available to serve as a stiffener
- ▶ Seismic and vibration isolation bearings can be cost effective
- ▶ A wide range of isolation systems utilizing elastomer materials

TYPICAL APPLICATIONS:

- ▶ PTFE sliding surfaces may be attached to plain bearing pads, laminated bearing pads or random oriented fiber pads
- ▶ Stainless steel #8 mirror finish mating surfaces ranging from 1/16" to 3/16" are readily available

CERTIFICATIONS/ APPROVALS

- ▶ Conforms to CAN/CSA and AASHTO



**Weather
Resistant**



**Energy
Dissipative**



**Structurally
Reinforced**

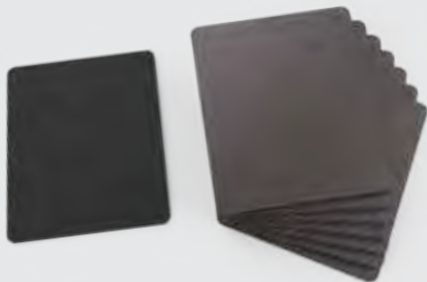


**High Load
Bearing**



Dynamex™ Shim Spacer

Dynamex™ Shim Spacers are an engineered, multi-polymer plastic specifically formulated for use in the construction industry as a bearing and shimming material. Shims are commonly used for hollowcore slabs, architectural precast cladding panels, prestressed concrete walls, floors and structural components which are perfect for leveling and accurate placement.



PRODUCT: Engineered Multi-Polymer Plastic

COLOUR: Black

DURO: 80 - 94

FORMAT: Strips & Cut-to-size

CORE ADVANTAGES

- ▶ Economical
- ▶ Will not rust, stain or leach concrete
- ▶ Available in precise thicknesses and lengths
- ▶ Compressive strength of 10,000 psi with no fracture
- ▶ Unaffected by liquids, chemicals, alkalis and micro-organisms
- ▶ Gives permanent support
- ▶ Easy to use and lightweight
- ▶ Scored for use at various lengths

TYPICAL APPLICATIONS:

- ▶ Hollowcore slabs
- ▶ Architectural precast cladding panels
- ▶ Prestressed concrete walls and floors
- ▶ Structural components



**Weather
Resistant**



**Energy
Dissipative**



**High Load
Bearing**

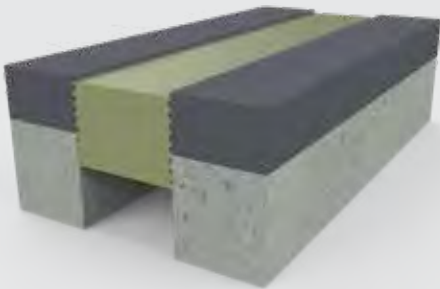


**Cost
Effective**

Dynamex™ Joint Seal



Dynamex™ Joint Seal was designed to accommodate movements and provide a watertight seal for variations in joint widths through compression and tension. The material is a low-density closed cell cross-linked ethylene vinyl acetate polyethylene copolymer nitrogen that is bonded into place with a two component, 100% solids, modified epoxy adhesive. Grooves are placed along the edges to ensure an enhanced bond is achieved.



PRODUCT: Cross-Linked Nitrogen Blown Joint Seal

COLOUR: Beige

DURO: 46

FORMAT: Low Density, Closed Cell,

CORE ADVANTAGES

- ▶ Working range of 60% compression, 30% tension and 120% shear
- ▶ UV stable
- ▶ Resistant to abrasion, oxidation, oils, salt and other materials
- ▶ Versatile movement
- ▶ Nitrogen blown
- ▶ Simple
- ▶ Hydrostatic applications

TYPICAL APPLICATIONS:

- ▶ Sealing joints on bridges, parking decks, stadiums, buildings and wastewater treatment facilities
- ▶ Repair and maintenance of existing joints
- ▶ Horizontal and vertical applications
- ▶ Expansion joints with varying joint widths



**Weather
Resistant**



**Oil
Resistant**



Dynamex™ Loadtex™

Dynamex™ Loadtex™ is a resilient laminated-fabric pad that is scientifically designed and manufactured comprising of layers of tightly twisted, closely woven lightweight duck. Each layer is impregnated with an elastomeric compound containing mold and mildew inhibiting agents. The properties of Loadtex™ are exceptionally suited for the reduction of impact shock, vibration and structure-borne noise.



PRODUCT: Fabric Reinforced Pad

COLOUR: Brown/Orange/Tan

DURO: 90 +/-5

DESIGNATION: Fibre Reinforced

FORMAT: PTFE Bonded Sheet, Strips & Cut-to-size

CORE ADVANTAGES

- ▶ Withstand loads between 10,000 psi (69 MPa) and 20,000 psi (138 MPa) before breakdown
- ▶ Compressible due to its composition
- ▶ Retains original length and width under compression and impact
- ▶ Deflection is limited to about 5 percent of original thickness
- ▶ Resistant to water, oil and heat

TYPICAL APPLICATIONS:

- ▶ Steel mill bumper assemblies for stopping the motion of hot ingots
- ▶ Forge shop anvil pads for forging hammers
- ▶ Impact machinery
- ▶ To control shock and vibration

CERTIFICATIONS/APPROVALS

- ▶ Conforms to AASHTO SECT. 18.4.10.1 GRADE 3 AND MIL-C-882E



**Weather
Resistant**



**Oil
Resistant**



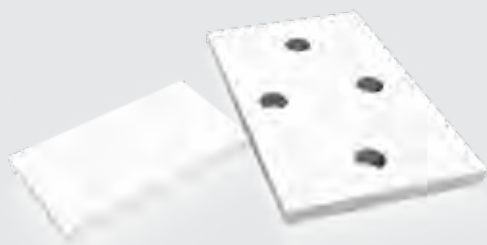
**High Load
Bearing**



Dynamex™ LoadTherm™



Dynamex™ LoadTherm™ is a polymeric, load-bearing thermal break designed for use between structural framing elements which penetrate a building envelope. Thermal loss through conduction at structural connections can lead to increased energy consumption as well as the damaging effects of condensation on interior finishes and indoor air quality.



PRODUCT: Fiberglass-Reinforced Laminate Composite

COLOUR: White

COMPRESSIVE STRENGTH: 38,900 PSI

DESIGNATION: LoadTherm Pads

FORMAT: 1/4", 1/2", 3/4" and 1" Thicknesses + Washers

CORE ADVANTAGES

- ▶ Reduces energy consumption
- ▶ Lowers maintenance costs
- ▶ High tensile, flexural, compressive and shear strength
- ▶ Low thermal conductivity
- ▶ Low coefficient of thermal expansion
- ▶ Reduced chance of condensation and mold

TYPICAL APPLICATIONS:

- ▶ Building envelope connections
- ▶ Modern construction
- ▶ Building rehabilitation



**Weather
Resistant**



**Energy
Saving**



**Structurally
Reinforced**



**High Load
Bearing**



Dynamex™ Rainguard

Dynamex™ Rainguard is a flexible nylon reinforced neoprene profile that satisfies the required movement criteria and compresses without damage during the full cycle of joint closure. The Rainguard system collects and drains excess amounts of moisture through an optional drain tube that exhibits similar flexibility. The block out or under slab versions can be used as a secondary back up to any expansion joint system in today's marketplace.



PRODUCT: Flexible Nylon (Premium) Reinforced Neoprene

COLOUR: Black

DURO: 70A

FORMAT: Blockout And Underslab Versions Available

CORE ADVANTAGES

- ▶ Reduces energy consumption
- ▶ Low maintenance costs
- ▶ Flexible gutter system
- ▶ Optional drain tube assembly
- ▶ Primary waterproofing
- ▶ Secondary waterproofing

TYPICAL APPLICATIONS:

- ▶ Building envelope connections
- ▶ New construction or rehabilitation where water tightness is needed
- ▶ Any expansion joint system that requires secondary moisture protection
- ▶ Extending service life of failing expansion joint systems



**Weather
Resistant**



Strong



**Structurally
Reinforced**

ABOUT

REDWOOD PLASTICS & RUBBER

Since 1971 Redwood Plastics and Rubber manufactures and distributes many grades of industrial plastic and rubber in-stock for quick delivery. We also have in-house engineering and fabrication to produce custom components that often replace steel, aluminum, and wood for longer wear life, decreased downtime, increased production, lighter weight, cost effectiveness and increased safety.

We supply plastic sheet, rod and tube as well as rubber sheet, rubber profiles, rubber rollers and molded rubber in an assortment of standard and specialty grades to solve a variety of problems including; shock, abrasion, noise, weight, mold & mildew, wear, and friction.

Redwood Plastics and Rubber has the manufacturing capabilities to mold, machine, and fabricate, a wide-range of high-quality parts in prototype and production volumes. We distribute and manufacture; UHMW, Acetal, Nylon, Sheet Rubber, Rubber Rollers, Polycarbonate, Acrylic, Polyurethane, PEEK, Tuffkast, Industrial Laminates, PTFE, FRP Wall Panels, FRP Grating and many more.

Contact our knowledgeable staff with any questions regarding industrial applications with plastics or rubber and for the most cost-effective plastic and rubber solutions.



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