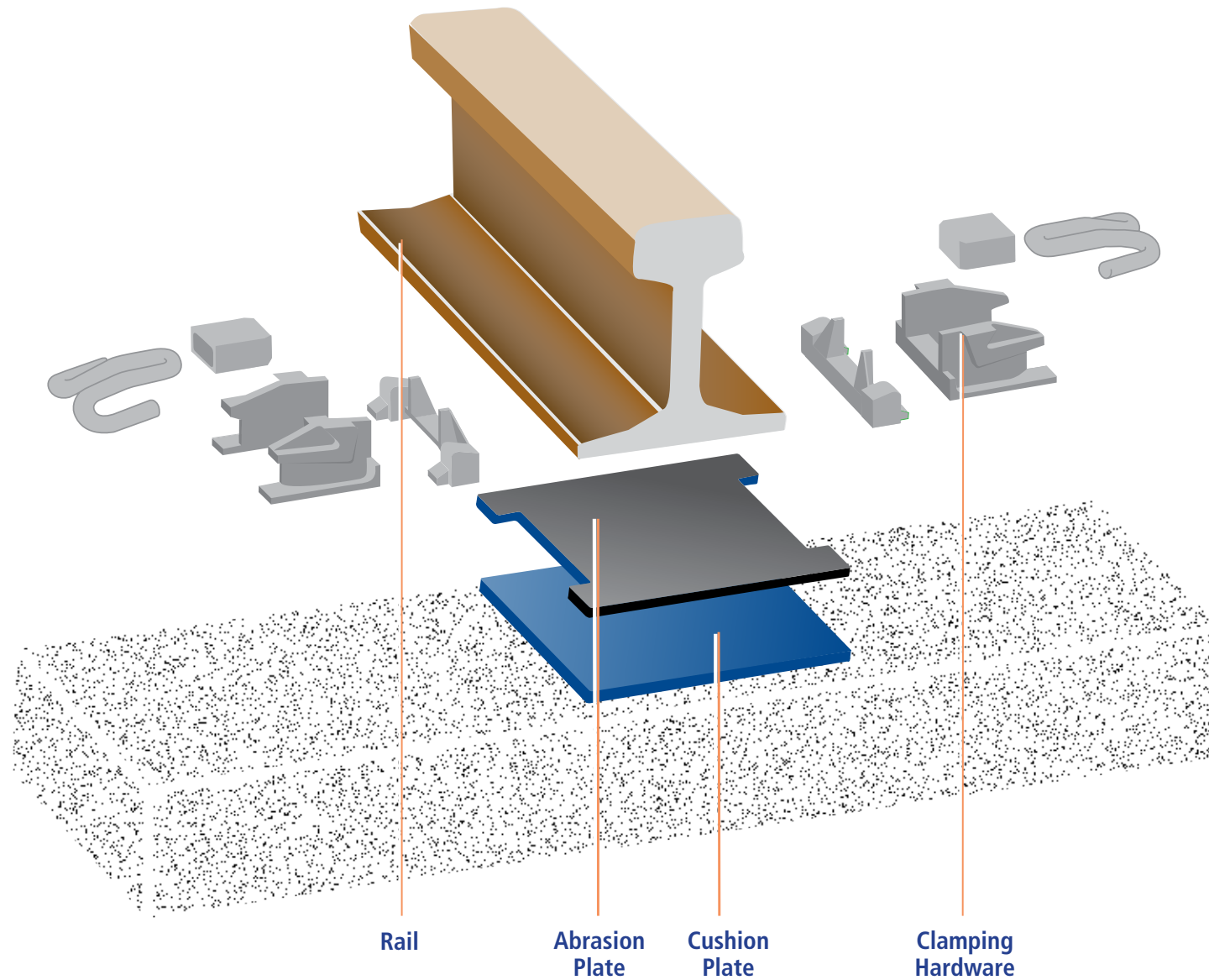
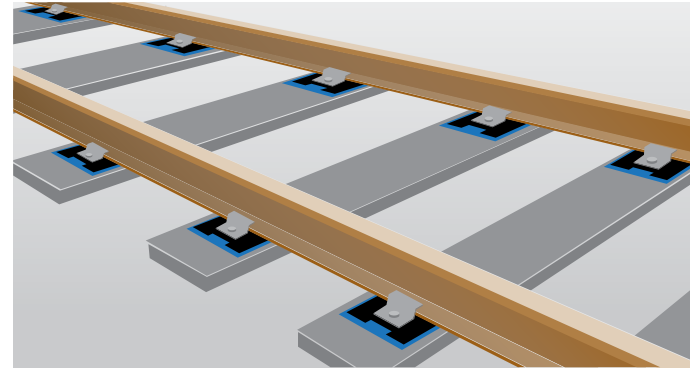


## DuraSurf™ Rail Wear Pads

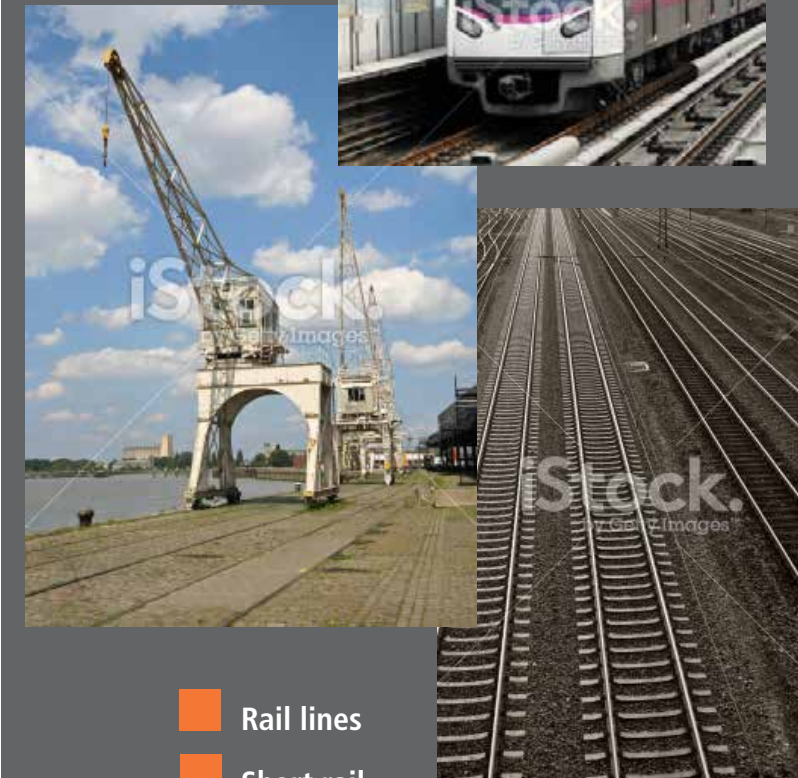


## Rail Tie Solution

Crown Plastics DuraSurf™ ASC-UV UHMW product is a preferred solution for insulated, anti-skid rail pads.

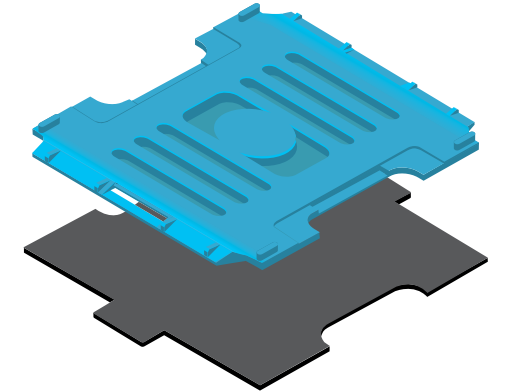
DuraSurf™ Rail Pads offer improved performance, including:

- Reduced force displacement
- Reduced shock and vibration
- Improved load distribution
- Improved durability for ties and fasteners
- Reduced service downtime
- Improved stability in the track system
- Water resistance
- UV protection



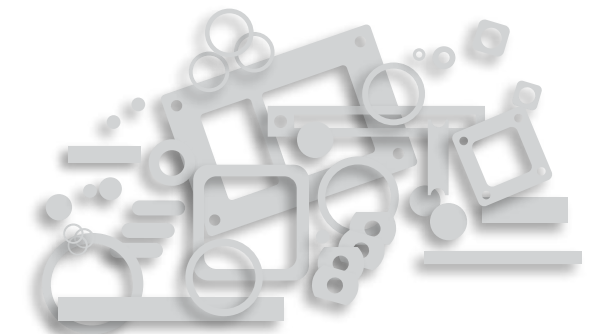
- Rail lines
- Short rail
- Light rail
- Crane and heavy equipment tracks

## DuraSurf™ Rail Cushion Assembly



The patented DuraSurf™ Rail Cushion Assembly is a resilient UHMW-PE pad for placement against the lower surface of a railroad rail and an underlying abrasion plate for placement against a railroad tie. The rail pad includes a pair of slots that extend through opposite end sloping edge panels that are adjacent to the lower surface of the rail pad. The abrasion plate is a flat, sheet-like component that has a generally similar shape as that of the rail pad but includes a pair of outwardly extending connection tabs, one at each of a pair of opposite edge surfaces. The connection tabs of the abrasion plate are received in respective slots of the rail pad to provide the DuraSurf™ Rail Cushion Assembly in ready-to-use form and without requiring on-site assembly of the components.

## Locomotive and Rail Car Applications



Crown Plastics' DuraSurf™ line of UHMW polyethylene products are designed to eliminate problems associated with Buzz, Squeak, and Rattle (BSR), and Noise, Vibration and Harshness (NVH). These problems are normally attributed to wind leakage, movement between adjoining panels, and gaps and holes in panels. DuraSurf BSR thin tapes and thicker gauge DuraSurf ETA help eliminate wear and noise between dissimilar materials, allows movement in adjoining parts, protect painted surfaces, cover openings in frames and panels, reduce marring and help extend vehicle life and enhance the quality image of the vehicle manufacturer. DuraSurf BSR and DuraSurf ETA are easily die-cuttable and can fit into existing designs.

**PERFORMANCE. VALUE. SERVICE**

Crown Plastics is the world leader in manufacturing thin gauge continuous-roll UHMW-PE.

Our DuraSurf™ line of UHMW products are an excellent solution when materials rub against each other, creating noise or wear and compromising the function and/or life of the materials.

Crown Plastics DuraSurf™ UHMW offers these advantages:

- The highest abrasion resistance of any thermoplastic polymer (5 times greater than stainless steel)
- Outstanding impact strength even at very low temperatures
- An excellent sliding material due to the low coefficient of friction
- Self-lubricating (non-caking and sticking)
- Good chemical and stress cracking resistance
- Easily machined
- Sound dampening properties

**DuraSurf™ ASC-UV**

Mechanical Properties	ASTM Test	Units Metric (U.S.)	UHMW Thickness Gauge
Density	D792	gm/cc	.060"
Tensile Strength @ Yield	D638	MPa(psi)	20(2964)
Tensile Strength @ Break	D638	MPa(psi)	49(7056)
Elongation @ Break	D638	%	463
Youngs "E" Modulus	D638	MPa(psi x 105)	731(1.06)
Izod Impact Strength	D256 <sup>(1)</sup>	J/m(ft-lb/in notch)	*
Hardness Shore "D"	D2240	-	65
Water Absorbtion	D570	%	Nil
Rel. Solution Viscosity	D4020	dl/gm	2.3-3.5
Coefficient of Friction	D1894-96	Static	.16
Coefficient of Friction	D1894-96	Dynamic	.13

(1) Izod Impact: Samples have 2(15° +/- 1/2°) notches on opposite sides to a depth of 5mm

**Comparison of Dynamic Coefficient of Friction on Polished Steel**

Material	UHMW-PE	Nylon 6	Nylon 6/6	Nylon MoS2
Dry	.10 – .22	.15 – .40	.15 – .40	.12 – .20
Water	.05 – .10	.14 – .19	.14 – .19	.10 – .12
Oil	.05 – .08	.02 – .11	.02 – .11	.08 – .10

\* No reading could be taken due to material thickness

DuraSurf™ UHMW offers the greatest value/performance characteristics over the life/warranty of the product when compared to products of lesser quality and durability.

DuraSurf™ UHMW can be tested to meet the specifications required by the rail industry. DuraSurf™ UHMW is certified meeting the transportation requirements set forth by the major automobile manufacturers.

It is the policy of Crown Plastics Company to provide material and service that meets or exceeds the Quality Standards throughout the customer chain.

Crown Plastics prides itself in delivering the highest standard of quality service through:

- Attention to detail
- Responsiveness
- Follow-through

We manufacture **UHMW-PE...** but our product is **SERVICE!**



**ADVANCED THERMOPLASTIC SOLUTIONS**

116 May Drive  
Harrison, Ohio 45030 USA  
800-368-0238  
www.crownplastics.com

International Calling: 00-1-513-367-0238  
sales\_information@crownplastics.com  
In Europe: sales-europe@crownplastics.com

