



Advanced Thermoplastic Technology Solutions

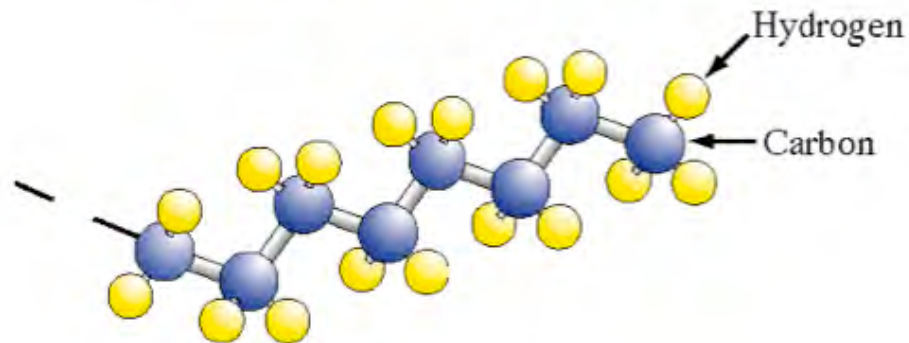


**The World Leader in The
Manufacture of Thin
Gauge UHMW-PE**

What is UHMW-PE?

UHMW Polymer is a Linear Polyethylene with a molecular weight range of 3,100,000 - 10,000,000 or higher. UHMW polymers have a molecular weight average 10 times that of conventional high density polyethylene resin.

UHMWPE Molecule





The high molecular weight is what gives UHMW Polymers a unique combination of characteristics making it more suitable for many applications where lower molecular weight grades fail.

Advantages Offered

- The highest **abrasion resistance** of any thermoplastic polymer
- 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)
- Excellent **sound dampening** properties
- Good **chemical and stress cracking resistance**
- **Easily machined**
- Electrical **insulating material** (static reduced available)
- **FDA and USDA Approved**



Compression Molding Methods

1) Flat Bed Presses

- Provides sheet material, typically .250' and thicker that must be mechanically fastened.

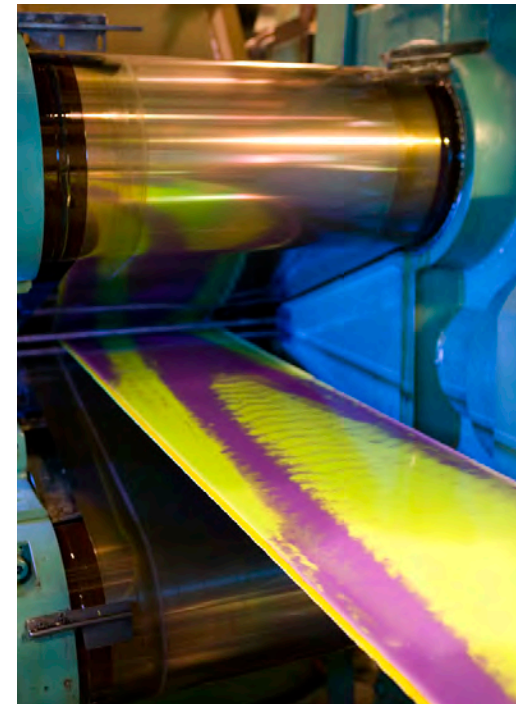
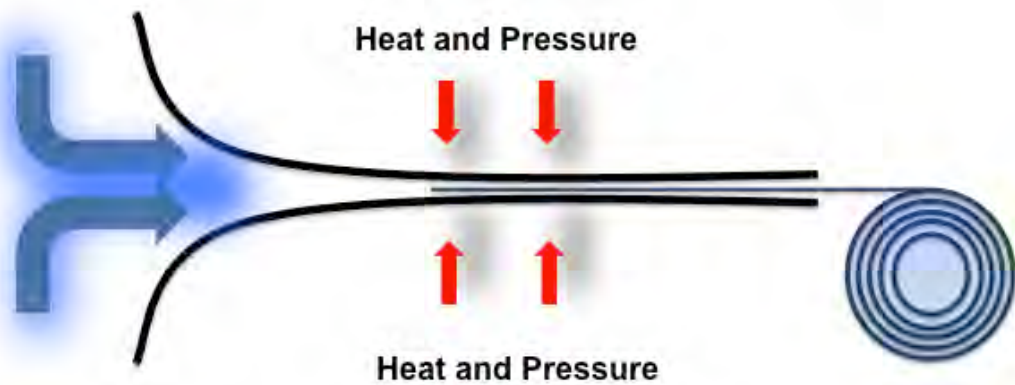
2) Ram Extruding

- Extruded profiles shapes that are installed for rails and guides.

3) Molding and Skiving

- Produces rolls of thin film (.003" - .020").

Crown Plastics Continuous Compression Molding Method



The Crown Plastics Advantage

The continuous compression process produces a smoother, more consistent UHMW material and allows for special lengths with no scrap or waste for larger custom orders.

- Continuous rolls
- A wide range of widths ... ¼" to 24"
- Thin gauges ... 3 mil to 1/4 inch
- Custom colors ... 200 lb. minimum
- Capability for additives
- Multi-layer laminating capability
- Surface treatment for diversified application needs
- Die-cutting capabilities



The Crown Plastics Advantage

Surface treatment for diversified application needs ...

All polyethylenes are low surface energy materials, they do not promote adhesion. Oxidation increases surface energy and transforms UHMW into a bondable material

WS ...

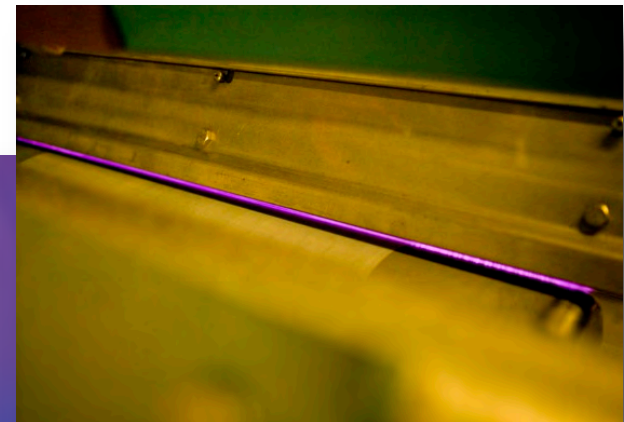
Plain, untreated back for non-bonding requirements.

TFB ...

Treated For Bonding – treated back for epoxy or other adhesive application.

PSA ...

Pressure sensitive laminated adhesive.





The Crown Plastics Advantage

Die-cutting capability for special shapes

Die-cutting capabilities offer a wide range of cost-effective diversified installation options for your customer.



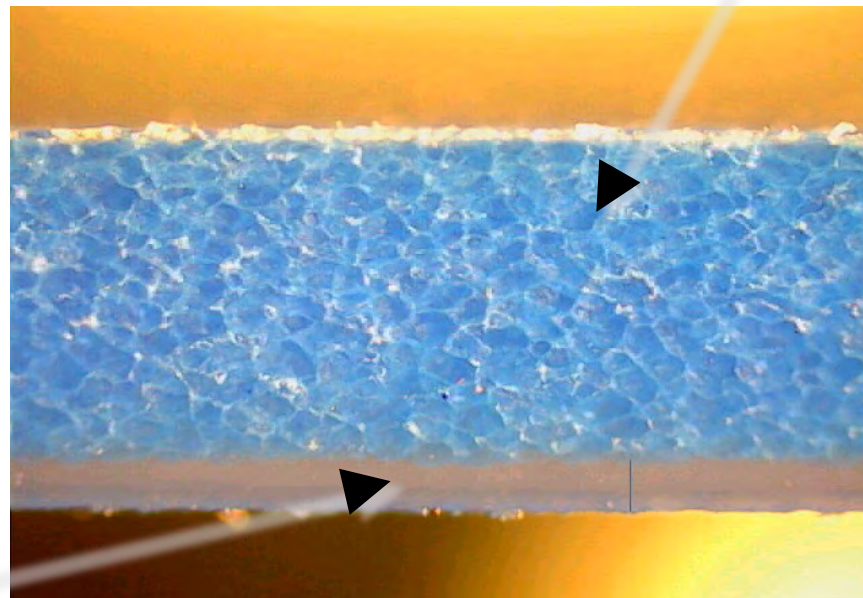


The Crown Plastics Advantage

Multi-Layer/Laminating capability

Innovative
Multi-Layer
Construction

Filled UHMW



HDPE Bonding Layer



CROWN PLASTICS

Recreational Markets



**DuraSurf™ Brands Own 80%
Of The Worldwide
Snowboard Market**

Industrial Markets



**DuraSurf™ Brands serve the
Material Handling, Automotive,
Agriculture, and General
Manufacturing markets**



Introducing Six New Products For Target Industrial Market Segments ...

DuraSurf ETA
by CROWN PLASTICS

DuraSurf STS
by CROWN PLASTICS

DuraSurf ASC
by CROWN PLASTICS

DuraSurf BSR
by CROWN PLASTICS

DuraSurf ASC-FDA
by CROWN PLASTICS

DuraSurf UV
by CROWN PLASTICS



DuraSurf **ETA**

by CROWN PLASTICS

Crown Plastics standard line of *Easy To Apply* premium UHMW featuring excellent abrasion resistance, low coefficient of friction, high impact strength, corrosion resistance, noise abatement, and FDA/USDA compliance.





DuraSurf UV

by CROWN PLASTICS

DuraSurf™ UV is a UHMW blend specifically designed to meet the rigors and harsh environments of the outdoors. Standard UHMW materials are not UV stable and can break down over time due to exposure. **DuraSurf™ UV** has the highest UV stability in the industry and can last up to 10 times longer in the outdoors than standard UHMW products.



DuraSurf ASC

by CROWN PLASTICS

Crown Plastics **DuraSurf™ ASC** is an Anti-Static/Conductive UHMW that possesses the highest level of conductivity in the industry with a surface resistivity of $10^2 - 10^3$. **DuraSurf™ ASC** protects against static build up that can occur in powder conveying and dust collection as well as provide protection in electronics applications such as appliance, mail sorting, copiers, printers and computers

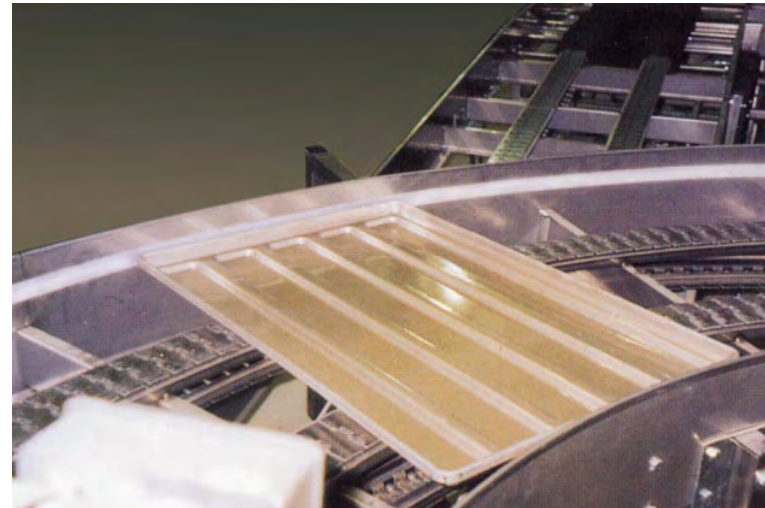




DuraSurf **ADC-FDA**

by CROWN PLASTICS

Crown Plastics **DuraSurf™ ASC-FDA** is an anti-static conductive UHMW material that meets FDA, USDA and 3A-Dairy compliance standards for direct food contact. **DuraSurf™ ASC-FDA** eliminates static build up that can occur in powder, sugar and grain conveying as well as providing excellent noise abatement. The self lubricating and corrosion resistant properties make it an ideal solution in many conveying and food processing applications.





DuraSurf STS

by CROWN PLASTICS

DuraSurf™ STS is a revolutionary product in that it not only possesses a **Silicone Treated Surface**, but is also available with an adhesive backing for easy installation. The very low coefficient of friction provides a lubricated surface that is virtually maintenance free. **DuraSurf™ STS** is an ideal solution for many applications in the package handling industry such as chute linings, slider beds, slides, spirals and numerous other areas where packages can get lodged or damaged.





DuraSurf BSR

by CROWN PLASTICS

Crown Plastics **DuraSurf™ BSR** tapes are specifically designed to meet the demands of the automotive industry to help eliminate **Buzz, Squeak and Rattle** issues with auto interiors. **DuraSurf™ BSR** helps eliminate wear and noise between dissimilar materials, eliminate warranty issues, allow movement in adjoining parts, protect painted surfaces, reduce marring, help extend vehicle life, is easily die-cut and can fit into existing designs. The **DuraSurf™ BSR** tapes are tested to all of the major automotive specifications.





Cost Savings Opportunity When Using Thin-Gauge **DuraSurf**

UHMW Sheet

- .250 x 3" x 50'

Cost of approximately \$60.00 w/o labor for installation, Plus fastener cost and machine downtime.

DuraSurf **ETA**

- .062" x 3" x 50' w/adhesive

Cost of approximately \$45.00. No labor for installation or fastener costs. Installation time and downtime are reduced

25% Material Cost Savings ... Plus Savings for Installation and Downtime!

DuraSurf

by CROWN PLASTICS

DuraSurf ETA

by CROWN PLASTICS

DuraSurf ASC

by CROWN PLASTICS

DuraSurf ASC-FDA

by CROWN PLASTICS

DuraSurf STS

by CROWN PLASTICS

DuraSurf BSR

by CROWN PLASTICS

DuraSurf UV

by CROWN PLASTICS

- ✓ Flexible
- ✓ Cost Effective
- ✓ Easy To Apply
- ✓ No Fasteners
- ✓ Reduce Labor
- ✓ Reduce Downtime



CROWN
PLASTICS

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