STYRENE

Bringing Peace of Mind and Quality to Life

You may be surprised by the many ways that products made from styrene give you peace of mind. Taking your morning shower, fixing meals, commuting, working on your

computer, and an evening of television all depend on styrene. In fact, products made from styrene add quality to life in thousands of places where you may least expect it.

Styrene is a building block for the manufacture of a broad range of materials used in thousands of products throughout the world.

Products made from styrene add convenience, value and quality to your daily life. They range from packaging such as jewel cases that protect your CDs and containers that keep yogurt fresh to toys and recreational equipment, and myriad consumer electronics, construction, transportation and medical applications.

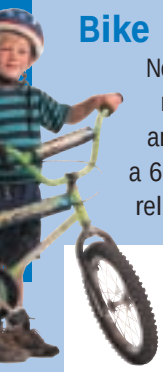
Probably the most recognizable material is polystyrene, often encountered as expanded polystyrene foam (EPS). Other styrene-based materials include acrylonitrile-butadiene styrene (ABS), styrene-acrylonitrile (SAN), styrene-butadiene rubber (SBR), and unsaturated polyester resin (UPR), which is better known as fiberglass.

Styrene-based materials offer unique characteristics of toughness, high performance, versatile design, simplicity of production, and economy. They provide excellent hygiene, sanitation and safety benefits.

And many styrene-based products offer superior insulation qualities for use in building construction where they provide energy conservation. They have the ability to be recycled where collection systems are available. In many cases, styrene helps create products for which there are few, if any, substitutes.

Altogether, these materials provide benefits that give peace of mind and add quality to life for people worldwide. It would take many pages to tell you the whole styrene story, but here is a sampling of its uses and benefits.

Bike Helmets Save Kids' Lives



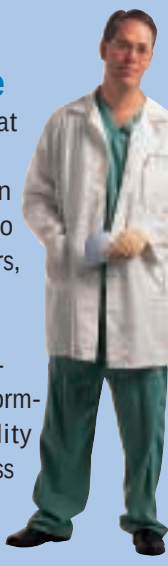
Nearly non-existent until the 1980s, bicycle helmets made from impact-absorbing styrene-based plastics and composites have contributed in recent years to a 60% decline in the U.S. death rate from bicycle-related injuries among children 14 and under.

'Without plastics, no modern helmet would be possible. There are no natural materials that could equal plastics."

Randy Swart
Director of the Bicycle Helmet Safety Institute

Today's helmets are small, sleek and "hip." A recent winner of the U.S. National Safe Kids Campaign essay contest wrote: "I was...crossing the street and this car came across and hit me! I flew off my bike and went up on the hood of the car. I had a broken wrist and ankle, but my head was just fine thanks to my helmet." It's estimated that nearly ⅔ of the injuries stemming from foot-propelled scooters could be prevented or lessened if riders wore protective helmets.

Cornerstone of Medicine, Hygiene



Donated organs and many vaccines must be kept at low temperatures. Easy enough when you have a refrigerator or freezer handy, but a challenge when you must transport them long distances. Thanks to the thermal insulation properties of EPS containers, organs and vaccines can reach their destinations ready for transplant or use.

ABS resin is used for the housing of a state-of-the-art blood analyzer because of its proven performance in applications that require strength, durability and a high-gloss surface to help ensure cleanliness in hospital settings.

'Home Sweet Home' Wouldn't Be the Same Without Styrene

The first thing many of us touch in the morning is the alarm clock, often made from styrenic plastics. Fortunately, our interactions with styrenics improve as the day progresses.

The inner linings of refrigerators typically are made from resins such as ABS or high-impact polystyrene. For items such as microwaves, styrenic plastics are more likely to be found in buttons and dials. In smaller appliances like mixers and blenders, the housing and accessories make good use of styrenics.

Styrenics are used in computer housings and keyboards, video game consoles, and housings for TVs, and video and audio equipment.

Carpets rely on durable backing of synthetic rubber made from styrene, which also is a key ingredient in latex paint.

Getting a Safe Grip on the Road

The convenience, safety and peace of mind you enjoy while driving all depend on styrene. In fact, if all of your vehicle's components that rely on styrenic materials were removed, you would not be able to drive it.

Tires are a good example. SBR (synthetic rubber) gives them better road-hugging ability, especially on wet pavement, for a safer ride, and also increases mileage.

Use of composites and other styrene-based materials in cars and trucks has increased steadily since General Motors built the first Corvette using fiberglass in 1953. Colorfastness, toughness and the ability to form custom shapes, coupled to light weight, make composite plastics a natural choice for bodies and components because they improve mileage and conserve resources.

The U.S. highway system is second to none in the world. Styrenic polymers used in the road surface can extend pavement life up to 50%, meaning more travel miles for the tax dollar.

From the top of the "big rig" to the tires on the road, and even the pavement beneath, styrenics keep you moving through your world.

"I'm able to walk away from a 200-mile-an-hour hit."

Driver Kurt Busch, after his car struck a barrier padded with polystyrene at the Indianapolis Motor Speedway.

On the Job, Styrenics Work for You

These days, when you move into someone else's old office it may feel like you're moving into a brand new one. The furniture and equipment bear little trace of use. That's because much of what you've inherited is made from styrenic plastics — materials that have become indispensable in our working environment.

Whether it's your wood-finished desktop, computer monitor, letter trays, or the coat hanger behind the door, the properties of styrenic plastics are equal to the task. Polystyrene, ABS and SAN are among the materials that make computer casings and monitors strong and heat resistant, staplers resilient enough to withstand repeated impacts, and your desktop scratch resistant despite years of use.

Packaging that Preserves Freshness

Safe product delivery requires strong and efficient packaging material that holds up under tough conditions. Expanded polystyrene (EPS) packaging offers a range of properties, including superior insulation and exceptional cushioning to protect against shock and compression. Yet it is extremely light weight to reduce shipping costs. And the packaging, itself, is very low cost.

We who take our food supply for granted may forget the critical role that plastic packaging plays in ensuring the availability, protection and freshness of foods. Packaging, refrigeration and distribution systems are limited in less-developed nations. There, up to 50% of food is wasted before it reaches consumers, compared to 2% in the developed world. As plastic packaging becomes more available worldwide, it will present an opportunity to reduce hunger and improve public health by preserving meager food supplies, minimizing waste, and protecting against food-borne disease.

Where can I get more information?

Much more information about styrene and styrenics may be found at **www.styreneforum.org,** or through trade associations representing various segments of the styrene industry —

- Styrene Information and Research Center, www.styrene.org
- American Plastics Council, www.americanplasticscouncil.org, www.plasticsinfo.org, www.plasticsresource.com, or www.plastics-car.com
- Canadian Plastics Industry Association, www.cpia.ca
- Composites Fabricators Association, www.cfa-hq.org
- International Cast Polymer Alliance, www.icpa-hq.org
- International Institute of Synthetic Rubber Producers, www.iisrp.com
- National Marine Manufacturers Association, www.nmma.org
- Polystyrene Packaging Council, www.polystyrene.org
- SB Latex Council, www.regnet.com/sblc

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