

## **Plastics: Protecting Hockey Players On The Ice**

(NAPSA)—Professional hockey players make the acts of skating, shooting and scoring seem so effortless, you might be surprised to know that each of them is wearing 20 pounds of gear. In fact, an NHL goalie carries more than 40 pounds—and that's less of a burden than players used to have.

In the early days of hockey, players wore very little protective gear—no helmets, no shin guards, just skates, a heavy wool sweater and leather gloves. This did little to protect players from flailing sticks and pucks shot at 100 mph.

The first shin pads and kneepads, originally designed for cricket, did little to soften the blows. Later protective equipment, made from vulcanized fiber and leather, was hard and heavy. However, in 1958, an enterprising Canadian named "Mac" Carr Harris read about a new high-density polyethylene material developed in Germany. It had great rigidity and strength, so he used it to help protect hockey players.

Today, Harris' idea has been improved upon and modern plastic protective gear covers millions of hockey players in the United States. Players wear about 24 protective pads and the heavy wool sweaters have been replaced with lightweight, breathable jerseys made from synthetic fiber that wicks away moisture.

Helmets were a late addition to the game. The National Hockey League did not require players to wear them until the 1979 season. Today's helmets are constructed from a tough, durable composite plastic shell designed to resist high-impact blows and lined with a plastic foam core padding. Some players wear face shields of either polycarbonate plastic or wire cage. Most wear soft flexible plastic



Photo courtesy of Bruce Bennett Studios, Inc.

Over the years, plastic has helped lighten the load of professional hockey players.

mouthguards, too.

Goalies are expected to block incoming shots with everything they've got—including their faces, yet they didn't wear facemasks until 1959. Today's high-tech masks are custom fitted and often made of Kevlar<sup>®</sup>, the same polymer material used in bulletproof vests, and have wire cage-like face protectors that deflect oncoming pucks.

Goalies also wear heavy-duty leg pads—a foam core encased in leather-like plastic—that are flexible and water-resistant. They also use catchers and blockers on their hands, made of the same material. Thanks to lightweight plastic, goalies are able to remain agile on the ice while deflecting fast-moving pucks.

The boards surrounding the rink are made of fiberglass, allowing spectators to see the action while remaining protected from stray shots (and careening hockey players). The net is made of nylon mesh, so it's durable and resistant to melting ice and flying pucks.

So even though hockey is a game for iron men and women, plastics have helped make these ice gladiators more protected, safer and faster.