Vinyl Makes Life More Sustainable

Used for more than 60 years, vinyl is the material of choice for a wide range of products. Without vinyl, in North America we would spend $20 billion more to find alternative materials for its many uses — and they almost certainly would not perform as well.

An incredibly versatile plastic, vinyl, also known as polyvinyl chloride (PVC), is produced from chlorine and ethylene. With the addition of other additives, vinyl can be flexible, rigid or anything in between; transparent or colorful; thick or thin. This versatility enables vinyl to be made into a variety of products — from pipe, siding, flooring and wallcovering to blood bags, toys, packaging and windows — and also ranks it as the third-largest volume plastic produced in North America.

Polyvinyl chloride (PVC) has many energy and environmental benefits. Over the past 25 years, more than 20 life-cycle analyses have been done on PVC building products. The results indicate that PVC products perform favorably in terms of energy efficiency, thermal-insulating value, low contribution to greenhouse gases and product durability, which means using fewer resources.

- Because more than 50% of the PVC polymer is derived from common salt, vinyl manufacture requires less finite natural hydrocarbon resources such as petroleum.
- PVC products are durable — in fact more than 70% are used in long-life applications. PVC window frames, for example, last more than 30 years.
- PVC is recyclable and global industry has worked since 2001 with the Association of Cities and Regions for Recycling and Sustainable Resource Management to improve the recycling of plastic waste collected by local authorities.
- Production of PVC results in little waste or unwanted by-product.
- A 2001 review of vinyl chloride by the Organisation for Economic Co-operation and Development concluded that PVC is non-toxic and does not degrade to products which are dangerous to human health.
- Properly formulated PVC compounds are lower in cost compared to many alternative materials which makes many products more available to more people.
- Several expert authorities, including the U.S. EPA and former Surgeon General Dr. C. Everett Koop, have concluded that properly formulated PVC compounds are safe.
- PVC compounds can be safely incinerated or landfilled.
- PVC compounds comprise only 1% (by volume) of the material in U.S. landfills.
- PVC food packaging films prevent food waste. As a major contributor to food safety, these films protect meat and dairy products from the micro-organisms that breed quickly when food is left uncovered.

FOR MORE INFORMATION ON THE DATA PRESENTED HERE PLEASE CONTACT:

Barry Eisenberg at beisenberg@plasticsindustry.org
Information and Statistics Courtesy of:

- American Council on Science and Health
- American Society of Mechanical Engineers
- AZo Journal of Materials Online
- European Commission
- European Council for Plasticisers and Intermediates
- European Council of Vinyl Manufacturers
- European Plastics Converters,
- European Stabiliser Producers Association
- Greenerindustry.org
- National Center for Policy Analysis
- Omnova Solutions, Inc.
- Society of Plastics Engineers
- Teknor Apex
- Vinyl Council Australia
- Vinyl Siding Institute
- Vinyl Institute
- Vinyl News Service

SPI: The Plastics Industry Trade Association represents the third largest manufacturing industry in the United States. SPI’s member companies represent the entire plastics industry supply chain, including processors, machinery and equipment manufacturers and raw materials suppliers. The U.S. plastics industry employs 1 million workers, operates 17,348 facilities located in every state, and provides nearly $327 billion in annual shipments.

SPI’s Flexible Vinyl Products Division promotes the advancement of the flexible vinyl industry and works for the benefit of all companies within the flexible vinyl industry, regardless of end application. Flexible (plasticized) vinyl includes both plastisols (liquids) and solids (pellets, cubes, powders, etc.) materials.