



Heartland Science



Ohio's Legacy of Discovery & Innovation



Materials

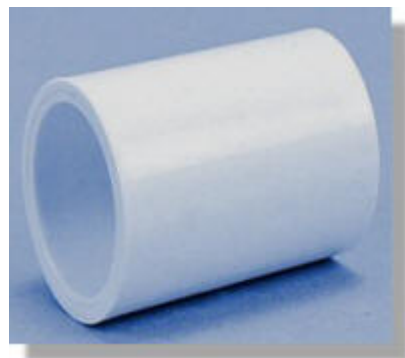
From Pottery to Plastics

Invention of PVC Plastic

Waldo L. Semon (1898-1999), a native of Hudson, Ohio, was a young research chemist with the B.F. Goodrich Company in Akron in 1926 when he attempted to invent a method for converting a waste plastic (called polyvinyl chloride or PVC) into an adhesive that could bond metal to rubber. "People thought of PVC as worthless back then," Semon explained. "They'd throw it in the trash."



Semon did not succeed with this venture, but through the process of heating the PVC he inadvertently discovered a substance that was both flexible and elastic. Applications for the PVC did not come along instantly, but over time the substance has become the world's second-best-selling plastic, generating billions of dollars in annual sales.



In 1933, a U.S. patent was issued to Semon, titled "Synthetic Rubber-like Composition and Method of Making Same" (U.S. No. 1,929,453). The patent suggested a variety of uses for the product, including water-proofing and flooring. PVC is the key ingredient in plastic piping and was also used to manufacture phonograph records.

Down the road, Semon's research also helped lead to the discovery of thermoplastic polyurethane and the first oil-resistant synthetic rubbers. He also is said to have helped pioneer bubble gum.

Find out more...

- American Plastics Council: History of Plastics (www.americanplasticscouncil.org/s_apc/sec.asp?TRACKID=&SID=6&VID=86&CID=310&DID=920)