



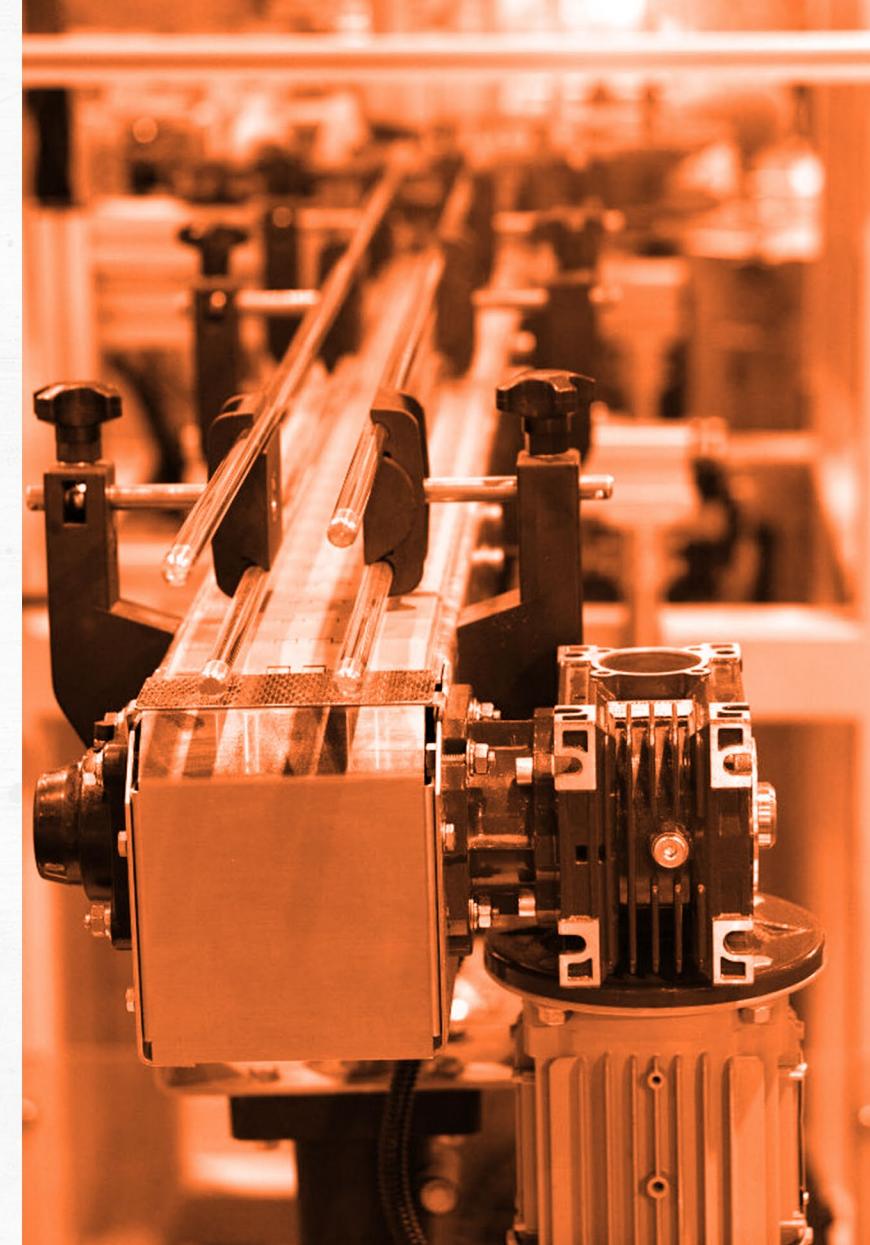
PLASTICS MANUFACTURING

Applications in Everyday Life



"Today nearly everyone, everywhere, every day comes into contact with plastics. They have become the workhorse material of the modern economy due to several reasons: availability, versatility, but above all they are virtually unrivalled in terms of great performance at low cost."

~ WeForum.org



PLASTIC MANUFACTURING FACTS

(NATIONAL DATA)

1 Plastics is the 6th largest manufacturing industry in the United States.

2 Almost 1.5 million people are employed in the plastics industry.

3 The average salary of all workers in the plastic industry in 2022 is \$66,253.

U.S. PLASTICS MFG FACTS

4

The top three largest sectors utilizing plastics are packaging, building and construction, and textiles.

5

Plastics are up to 12 times stronger than steel, making cars safer, lighter, and more fuel efficient.

6

For every 10% reduction in weight, a vehicle will normally save 5 – 7% in fuel usage. For every 1lb of weight eliminated from a vehicle 25.3lbs of carbon dioxide is saved over the life of the vehicle.





TYPES OF PLASTIC MANUFACTURING

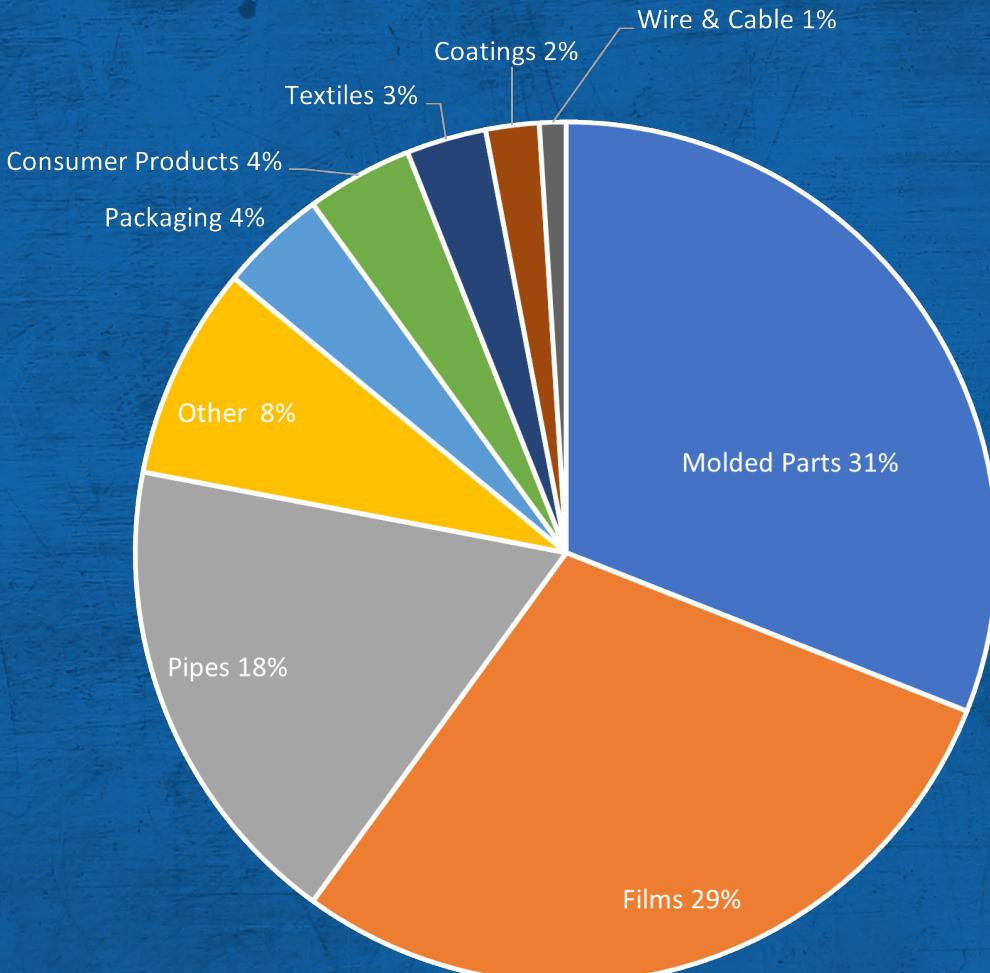
- Injection Molding
- Plastic Part Design
- Medical
- Plastics/Resins
- Tooling/Molds
- General Manufacturing
- Metal-to-Plastic
- Scientific Molding

INDUSTRIES DEPENDENT ON PLASTICS

- Construction
- Manufacturing, durables
- Manufacturing, nondurables
- Products made of paper and paperboard
- Health care providers
- Food service industry



DISTRIBUTION OF PLASTIC PRODUCTION IN U.S.



Source: <https://www.statista.com/study/54067/us-plastics-industry/>

2019

INDIANA PLASTIC MANUFACTURING FACTS

1

Indiana ranked 7th in plastics industry employment in the United States.

2

The average salary for workers in the Plastics Industry was \$66K.

3

The plastics industry directly employed 50,585 people in Indiana.

4

Industry shipments in Indiana totaled more than \$19 billion and comprised 4.4% of national shipments.

Source: <https://www.plasticsindustry.org/factsheet/indiana>



2019

MICHIGAN PLASTIC MANUFACTURING FACTS

1

Michigan ranked 4th in plastics industry employment in the United States.

2

The average salary for workers in the Plastics Industry was \$54K.

3

The plastics industry directly employed 71,113 people in Michigan.

4

Industry shipments in Michigan totaled more than \$22.9 billion and comprised 5.3% of national shipments.

Source: <https://www.plasticsindustry.org/factsheet/michigan>

PLASTICS IMPACT ON MEDICINE

- Plastics are impermeable to germs, making it vital in preventing the transmission of disease & patient infection.
- Plastics are used in surgical devices like modern pacemakers, stents, & joint replacement due to its ability to adapt to the tiniest and most intricate molds.
- Researchers have transplanted external 3D printed ears for children who had birth defects leaving their ears undeveloped.
- Plastics are the main material used in prosthetics, creating patient specific devices that are lighter and more flexible.



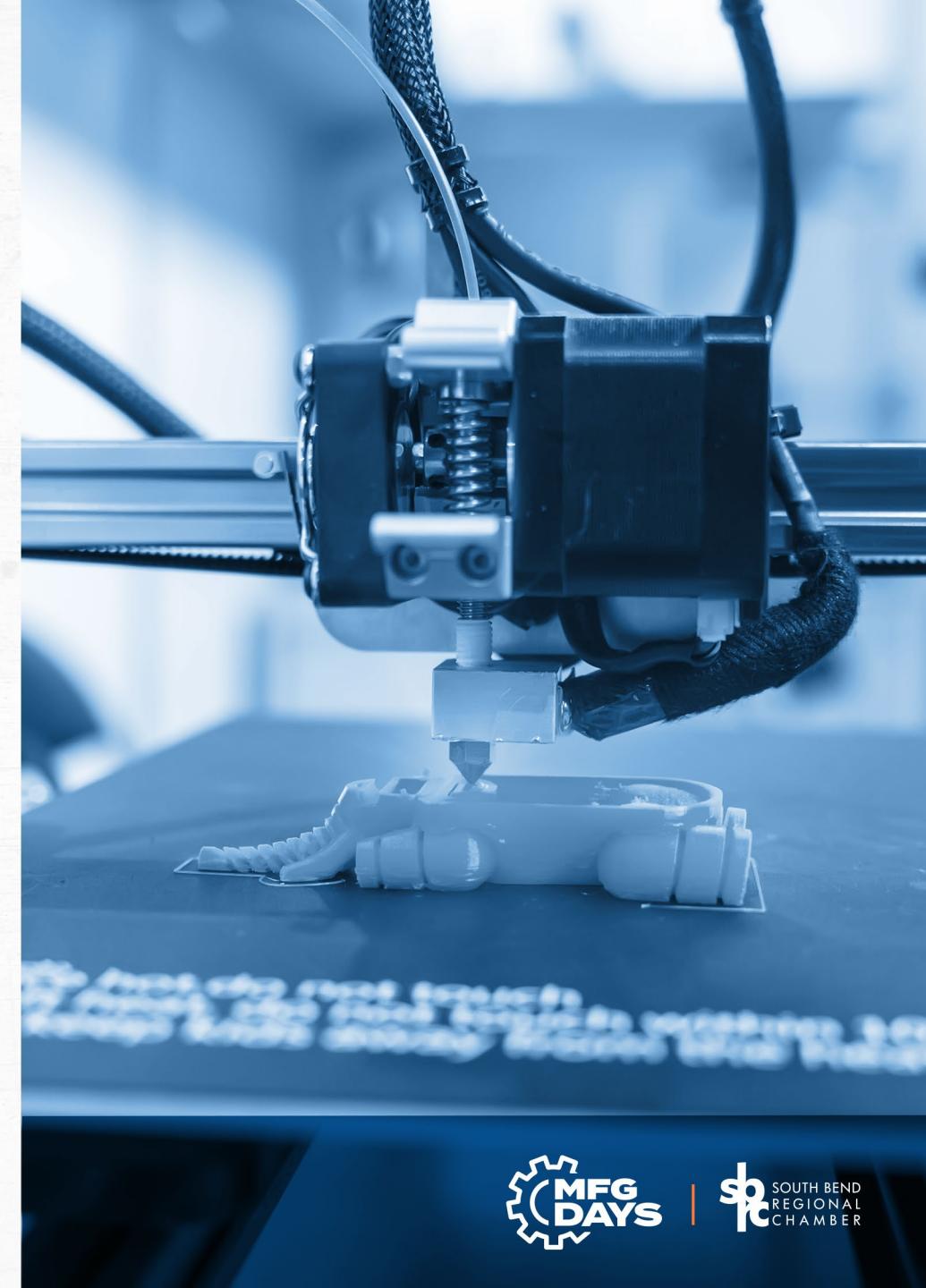


PLASTICS AND THE AUTOMOTIVE INDUSTRY

- By 2025, the automotive plastics market is expected to reach \$68.58 billion.
- Average vehicle consists of 5–10% of plastics in terms of overall weight.
- Companies that focus on automotive plastics will have a demand for engineers.
- Plastics lower production costs, advance modular assembly practices and improve the aerodynamic properties of car exteriors.

PLASTICS 3D PRINTING FACTS

- The worldwide market for 3D printed products and services is anticipated to exceed \$40 billion by 2024.
- Metal, Plastic, and Resin can all be used in 3D printing.
- Used in films to design characters, props, and costumes – Iron Man's suit was 3D printed!
- Can be used in space to create zero gravity adaptive tools and to build habitats to live on Mars or the Moon.





sbrchamber.com/mfgdays



RESOURCES

<https://www.plasticsindustry.org/>

<https://www.plasticsindustry.org/factsheet/indiana>

<https://www.plasticsnews.com/perspective/2020-plastics-industry-talent-trends>

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<https://www.kaysun.com/blog/plastics-industry-trends-2020>

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<https://datausa.io/profile/naics/plastics-product-manufacturing#:~:text=On%20average%2C%20employees%20in%20the,total%20of%2020269%20Industry%20Groups>

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<https://www.ziprecruiter.com/Salaries/Plastics-Industry-Salary>

<https://ourworldindata.org/>