

History of plastic and synthetic fibres



The first steps

1861 – Parkesine (Xylonite) – semi-synthetic material designed by Alexander Parkes.

1870 – Celluloid (cellulose nitrate) - pioneered by the Hyatt Brothers.

1900 – Cellulose acetate

The 1900s the century of plastic

1910 – Bakelite – The Belgian chemist Leo Baekeland condenses phenol and formaldehyde. Success would be exponential.

1912 – PVC – The chemist Fritz Klatter creates polyvinyl chloride.

1913 – Cellophane – the Swiss Jacques Edwin Brandenberger invents a transparent and waterproof cellulosic product.

1920 – Plastic macromolecules – Hermann Staudinger establishes the structure of synthetic polymers.

1930s adulthood

1930 – Plastic becomes an industrial product created from PETROLEUM

1935 – Nylon – Wallace Carothers synthesises nylon (polyamide) Use in the textile industry begins.

1939 – PVC – the first chloro-vinyl acetate copolymer is created.

1941 – PET – Rex Whinfield and James Tennant Dickson patented polyethylene terephthalate.

1945 and following years – Terylene – the Calico Printers' Association develops what will be the most widely used product in the textile field

The boom since the 1950s

1950s – Melamine resins – formaldehyde (FORMICA) plastic enters the world of furniture and tableware.

1950s – Polyester/Nylon – boom of their use in the textile field.

1953 – Polyethylene – Karl Ziegler isolates polyethylene.

1954 – Polypropylene – Giulio Natta discovers isotactic polypropylene.

1957 – Moplen – the brand was created that would revolutionise the construction industry with the use of polypropylene.

1960s

The years of affirmation in **fashion art design**.

1973 – PET bottle

Nathaniel Wyeth (Du Pont) **patents the PET bottle**. PET enters the world of packaging. Transparent and light.

TODAY – Technopolymers

Development in technology allowed **innovative creations with exceptional thermal and mechanical resistance characteristics**: Polymethylpentene (or TPX) (sterilisable and transparent); polyimides, non-alterable thermosetting resins for the automotive industry; acetal resins, polyphenylene oxide, ionomers, polysulphones, polyphenylene sulphide, polybutylene terephthalate, polycarbonate.