
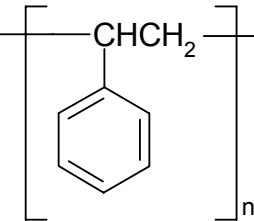
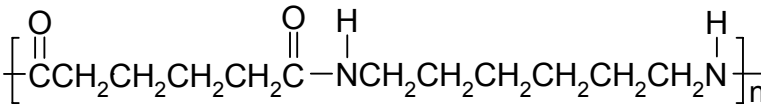
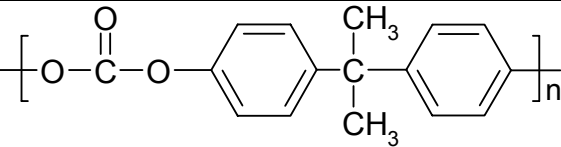
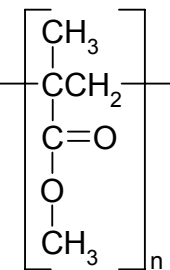


### Polymer Facts

Polymer	Symbol		Type	Structure	Uses
Polyethylene terephthalate	PETE	1	Condensation	$\left[ \text{C}(=\text{O})-\text{C}_6\text{H}_4-\text{C}(=\text{O})-\text{OCH}_2\text{CH}_2\text{O} \right]_n$	Soft drink and some milk bottles, oven-safe plastic wrap.
High density polyethylene	HDPE	2	Addition	$\left[ \text{CH}_2\text{CH}_2 \right]_n$	Milk bottles and other food and soap containers. Many other plastic outdoor objects such as picnic tables and mailboxes.
Polyvinyl chloride (PVC)	V	3	Addition	$\left[ \begin{array}{c} \text{CHCH}_2 \\   \\ \text{Cl} \end{array} \right]_n$	Plastic pipe, shampoo bottles, flooring, medical packaging (IV bags). Note that many soft PVC products contain plasticizers that will alter test results. Look for the smile.
Low density polyethylene	LDPE	4	Addition	$\left[ \text{CH}_2\text{CH}_2 \right]_n \left[ \begin{array}{c} \text{CH}_2\text{CH}_2 \\   \\ \text{CHCH}_2 \end{array} \right]_m$	Coffee can lids, 6-pack rings, many grocery bags, Elmer's glue bottles, shipping envelopes.
Polypropylene	PP	5	Addition	$\left[ \begin{array}{c} \text{CHCH}_2 \\   \\ \text{CH}_3 \end{array} \right]_n$	Plastic drinking straws, plastic tools such as rakes and ice scrapers, some food containers

Polystyrene	PS	6	Addition		Clear plastic cups, compact disc cases, light switch plates. Styrofoam is blown polystyrene, which contains pockets of gas for insulation.
Nylon-66	N-66		Condensation		Fibers for rope, fabric, etc. Patented by DuPont. Note that the generic Nylon-6 has similar properties, but a different structure.
Polycarbonate	PC		Condensation		Shatterproof glass replacement, lightweight eyeglasses, CDs, safety goggle lenses. Sold as Lexan.
Polymethylmethacrylate	PMMA		Addition		Shatterproof glass replacement, sinks and tubs, paint, viscosity reducer in oil. Sold as Plexiglass.