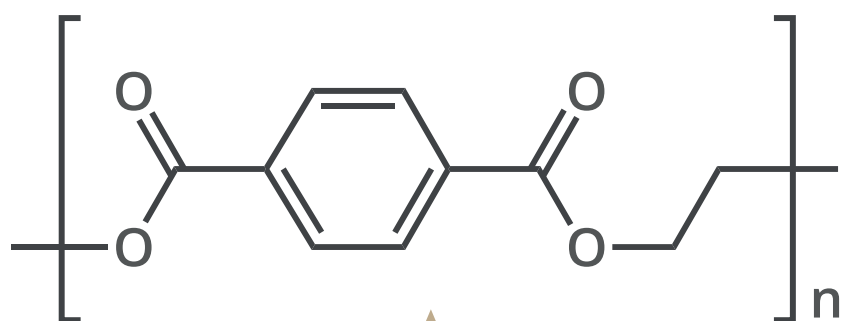


THE CHEMISTRY OF FOOTBALL SHIRTS

SHIRT MATERIAL: POLYESTER

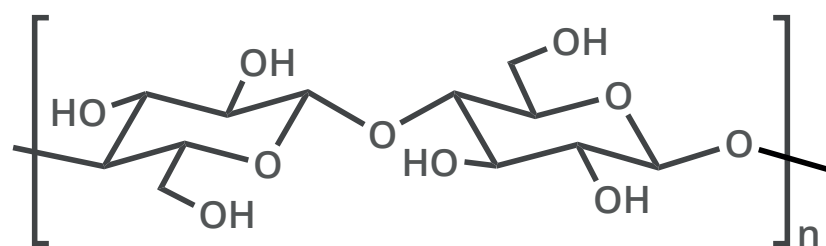
Polyesters are commonly used in textile applications. They are polymers, very large molecules built up from smaller molecules.

The synthesis of polyesters involves a condensation reaction between an alcohol and a carboxylic acid.



POLYETHYLENE TEREPHTHALATE (PET)

Most common type of polyester used in textiles. Occasionally combined with **cotton** (below) to form polycotton

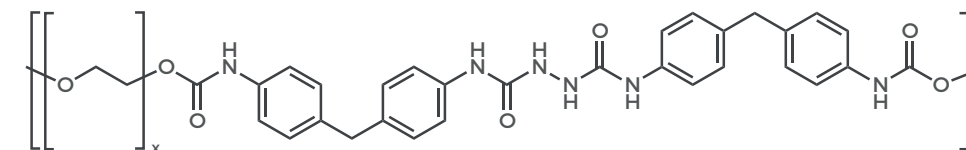


Polyester is durable, lightweight, resistant to creasing, and only absorbs 0.4% of its weight of water. It has a good 'wicking' effect - sweat is carried along the fibres, rather than absorbed, and can evaporate.



SHIRT MATERIAL: ELASTANE

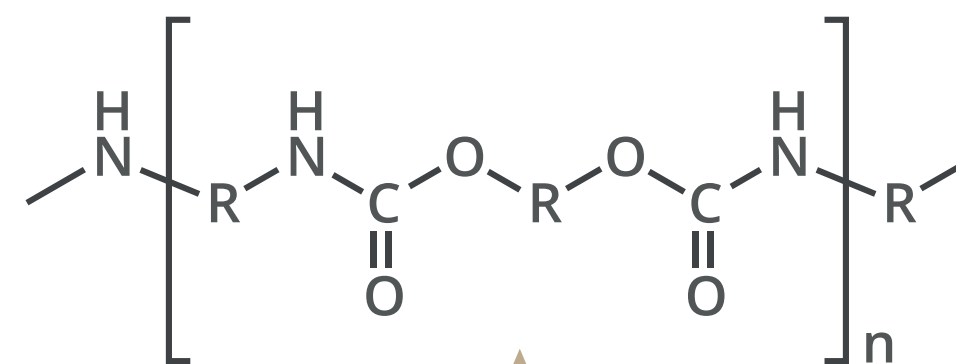
Also known as spandex or lycra, elastane is another polymer often incorporated into football shirts. It resists approximately 600% elongation before rupturing, adding strength and elasticity to shirts. However, it is not as 'breathable' as other materials.



ELASTANE

SPONSORS, NAMES & NUMBERS

The name, number, and sponsor logo on the shirt are often made of polyurethane. These are thermally bonded to the shirt.



POLYURETHANE

