

Nylon-6,6

Monomers for the condensation polymerization:

Color key:

black = carbon

white = hydrogen

red = oxygen

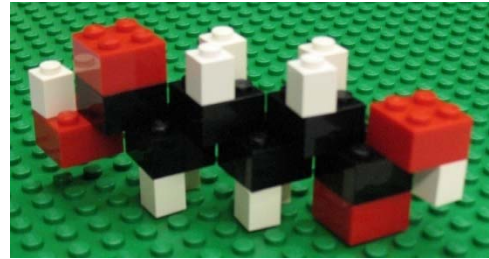
blue = nitrogen

This model requires:

6 black 2x2 bricks 4

4 red 2x2 bricks

10 white 1x1 bricks



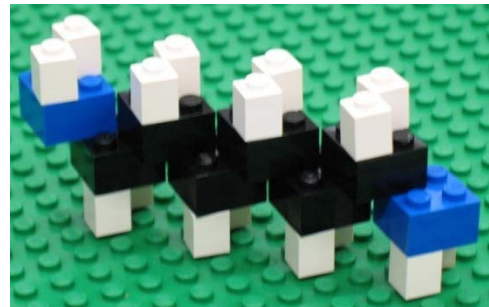
hexanedioic acid

This model requires:

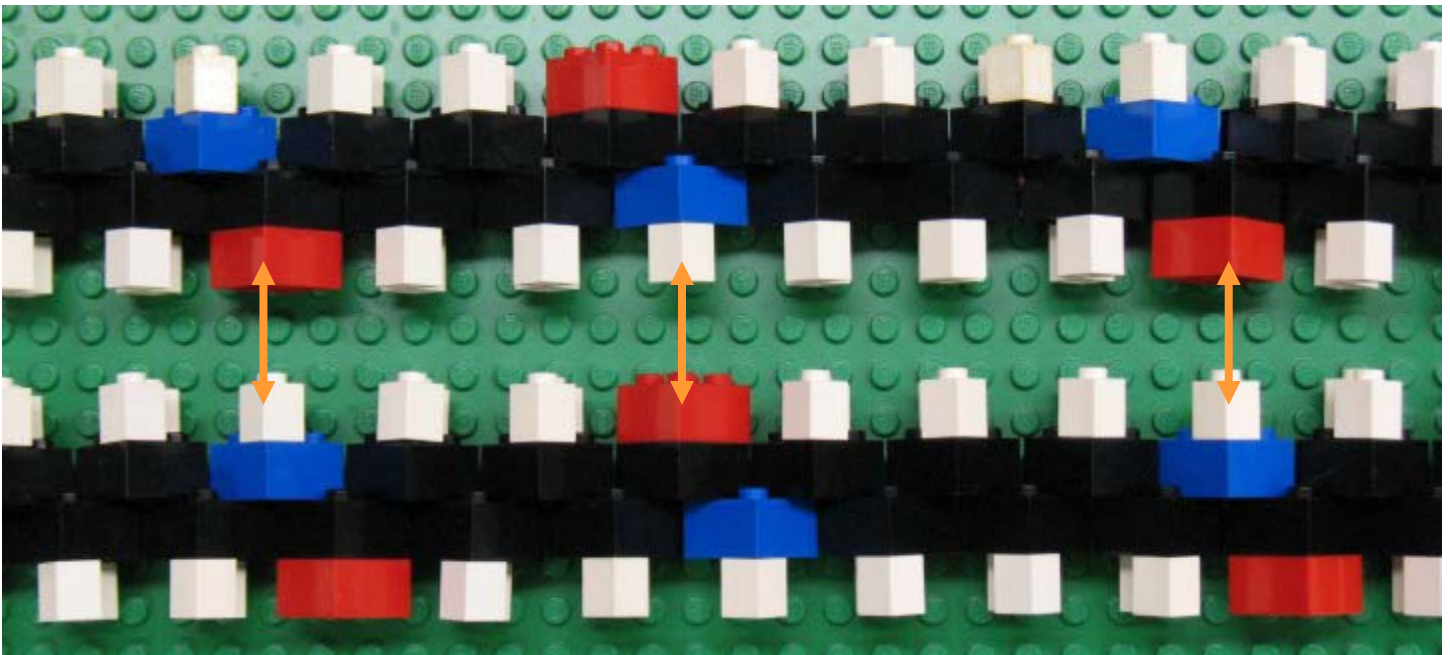
6 black 2x2 bricks

2 blue 2x2 bricks

16 white 1x1 bricks



1,6-diaminohexane



Hydrogen bonding (orange arrows) between oxygen atoms on one polymer strand and hydrogen atoms attached to nitrogen atoms on an adjacent polymer strand help to give nylon its strength.