

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Polymer Properties

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Properties of Polymers

Your teacher name goes here



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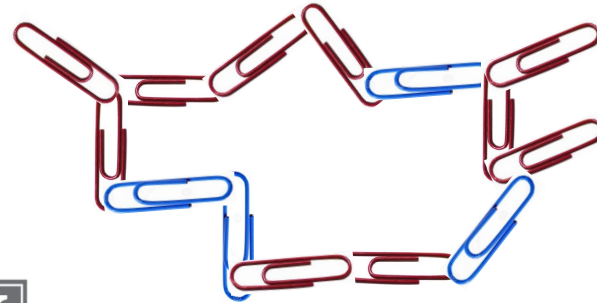
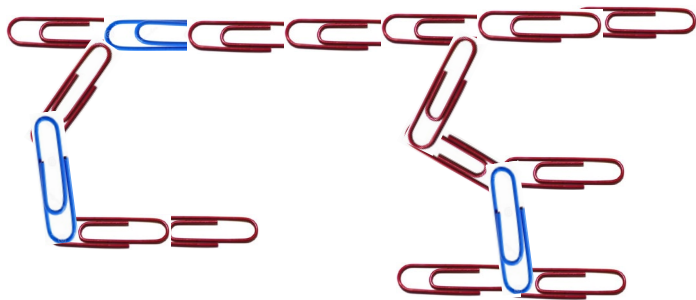
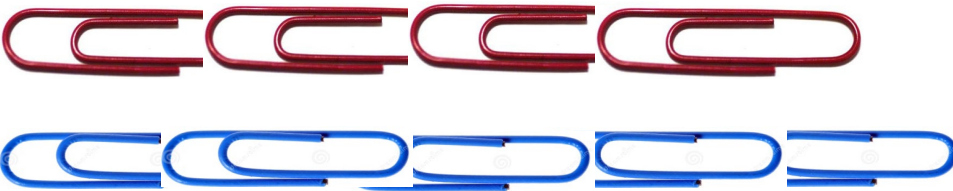
Recap first day

Polymer



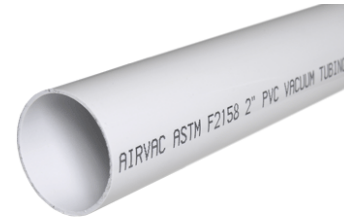
Poly (many)

mer (monomer)



Different polymers have different properties

- Rigidity



- Floatability



- Clear or cloudy or opaque



The 6 major polymers and their properties

Sample	Rigidity			Floatability		Clear / Cloudy / Opaque	Polymer Name	Application
	Low	Medium	High	Yes	No			
A								
B								
C								
D								
E								
F								



The 6 major polymers and their properties

Polymer	Polymer (abbr.)	Rigidity			Floatability		Clear / Cloudy / Opaque
		Low	Medium	High	Yes	No	



The 6 major polymers and their properties

Polymer	Polymer (abbr.)	Rigidity			Floatability		Clear / Cloudy / Opaque
		Low	Medium	High	Yes	No	
Poly ethylene terephthalate	PETE	Medium			NO		CLEAR



The 6 major polymers and their properties

Polymer	Polymer (abbr.)	Rigidity			Floatability		Clear / Cloudy / Opaque
		Low	Medium	High	Yes	No	
Poly ethylene terephthalate	PETE	Medium			NO		CLEAR
High-density Poly ethylene	HDPE	Medium			YES		CLOUDY
Poly vinyl chloride	PVC	High			NO		OPAQUE
Low-density Poly ethylene	LDPE	Low			YES		CLEAR
Poly propylene	PP	Medium			YES		OPAQUE
Poly styrene	PS	High			YES		OPAQUE



- You have 5-10 min



Find the right polymer



Helmet



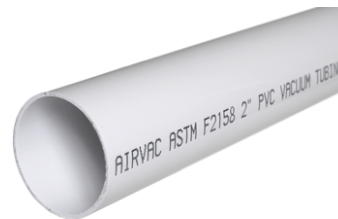
Jug



**Water
Bottle**



Bag









Pipe



Container



The 6 major polymers and their recycling

	Polymer	Polymer (abbr.)	
	Poly ethylene tetrathalate	PETE	
	High-density Poly ethylene	HDPE	
	Poly vinyl chloride	PVC	
	Low-density Poly ethylene	LDPE	
	Poly propylene	PP	
	Poly styrene	PS	



How do we separate them?

