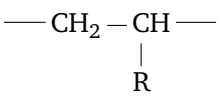
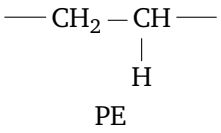
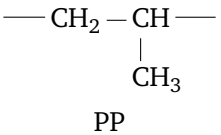


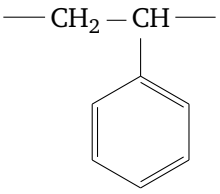
Vinyl class



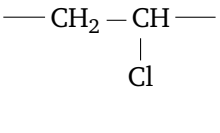
PE



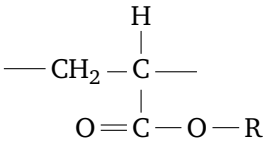
PP

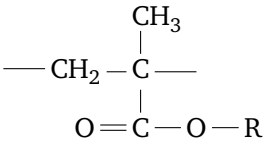


PS

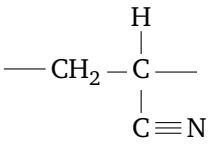


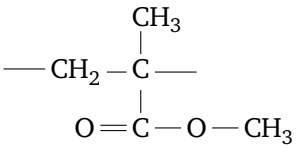
PVC



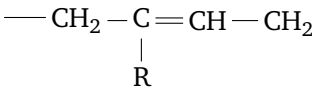


Acrylics class **Methacrylics class**

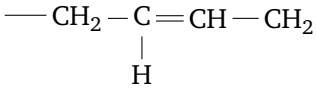


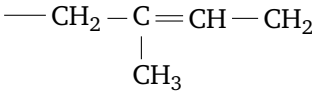


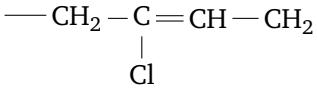
Polyacrylonitrile PMMA



Diene class







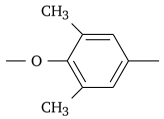
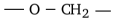
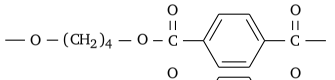
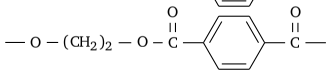
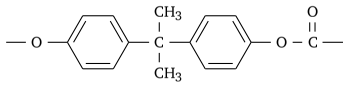
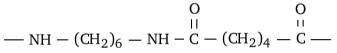
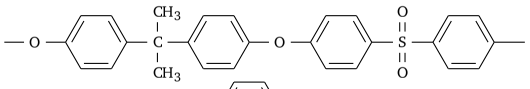
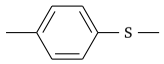
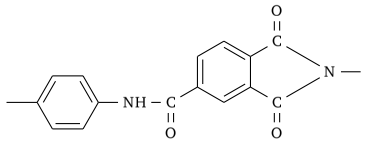
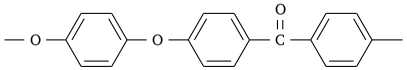
Polybutadiene Polyisoprene Polychloroprene

$$\text{—} \text{CX}_2 \text{—} \text{CR}_2 \text{—}$$

Vinylidenes class

$$\text{—} \text{CF}_2 \text{—} \text{CF}_2 \text{—}$$

Polytetrafluoroethylene

Class	Selected polymer	Structure
Polyoxides (ethers)	Polydimethyl phenylene oxide (PPO)	
	Polyoximethylene (POM)	
Polyesters	Polybutylene terephthalate (PBT)	
	Polyethylene terephthalate (PET)	
Polycarbonates	Polyisopropylidene diphenylene carbonate (PC)	
Polyamides	Polyhexamethylene adipamide (PA 66)	
Polysulfones	Polyether sulfone	
	Polyphenylene sulfide	
Polyimides	Polyamide imide	
Polyketones	Polyether etherketone (PEEK)	

Polymer	$\mathbf{T_m}$ (°C)	$\mathbf{T_g}$ (°C)
PVC	—	80
a-PS	—	100
PMMA	—	105
PPO	—	210
HDPE	140	−110
LDPE	110	−110
i-PP	165	−10
POM	180	−85
PBT	240	15
PA 66	265	20 − 70
PA 6	225	20 − 70
PET	265	70
PTFE	330	−150
PC	—	150
polyphenylene sufide	285	85
PEEK	330	140
polyether sulfone	—	190
amide-imide	—	290
polyimide	—	400
ABS (SAN/PAN)	−70	110
COC	—	70 − 180

$$\chi = 1 - e^{-kt^n} \tag{1}$$

$$k = \frac{v^3 N \pi}{3} \tag{2}$$

$$M_n = \frac{\sum_x N_x M_x}{\sum_x N_x} = \frac{\sum_x w_x}{\sum_x w_x / M_x} \tag{3}$$

$$M_w = \frac{\sum_x N_x M_x^2}{\sum_x N_x M_x} = \frac{\sum_x w_x M_x}{\sum_x w_x} \tag{4}$$

$$M_z = \frac{\sum_x N_x M_x^3}{\sum_x N_x M_x^2} = \frac{\sum_x w_x M_x^2}{\sum_x w_x M_x} \tag{5}$$

$$M_v = \sqrt[a]{\frac{\sum_x N_x M_x^{1+a}}{\sum_x N_x M_x}} \tag{6}$$

$$T_g = T_g^{\infty} - \frac{K}{M_n} \tag{7}$$

$$\chi = \frac{\Delta H_m - \Delta H_c}{\Delta H_m^{\text{ref}}} \cdot 100 \tag{8}$$

$$t = A \cdot e^{\frac{E_{\text{iso}}}{2.303 \cdot RT}} \quad \rightarrow \quad \log t = A + \frac{E_{\text{iso}}}{2.303 \cdot RT} \tag{9}$$

$$\text{rate} = A \cdot e^{\frac{-E_{\text{dyn}}}{2.303 \cdot RT}} \quad \rightarrow \quad \log \text{rate} = A - \frac{E_{\text{iso}}}{2.303 \cdot RT} \tag{10}$$

$$p_{\mathrm{gel,C}} = \frac{2}{\bar{f}} \tag{11}$$

$$p_{\mathrm{gel,FS}} = \frac{1}{\bar{f} - 1} \tag{12}$$

$$\bar{f} = \frac{f_{\mathrm{iso}} \cdot \mathrm{MW}_{\mathrm{eq,iso}} + f_{\mathrm{alcohol}} \cdot \mathrm{MW}_{\mathrm{eq,alc}}}{\mathrm{MW}_{\mathrm{eq,iso}} + \mathrm{MW}_{\mathrm{eq,alc}}} \tag{13}$$

black