

General NCC(Naptha Cracking Complex) System

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* Sourceable materials are highlighted in Yellow!!!					Remarks	
Crude oil	Naptha (Yield 10~15%) Gasoline Diesel Kerosene Methane H ₂ LPG etc..	Cracking	C ₂ :Ethylene(31%)	LDPE/LLDPE	LDPE : Low density poly ethylene , Linear LDPE	
				HDPE	HDPE : High density poly ethylene	
				EDC	EDC : Ethylene dichloride	
				VCM	VCM : Vinyl chloride monomer, PVC : Poly vinyl chloride	
				EO	EO : Ethylene oxide, EG : Ethylene glycol	
				Ethanol		
				Acetaldehyde	Ethyl Acetate	
				EPR	EPR : Ethylene propylene rubber	
				PP	PP : Polypropylene	
				AN	AN : Acrylonitrile	
	C ₃ :Propylene(16%)	PO	PO : Propylene oxide, PPG : Polypropylene glycol			
		PG/DPG/TPG	(M)PG : (mono) Propylene glycol, DPG : Dipropylene glycol, TPG : Tri-			
		Octanol	Octanol : Hydroxide with C ₈ Chain			
		Butanol				
		IPA	IPA : Isopropyl alcohol(LG Chem Pross)			
		Acrylic Acid / Ester				
		C ₄ (10%)	C ₄ mixture	MMA	PMMA	MMA : Methyl methacrylate, PMMA : Polymethyl methacrylate
			Butadiene	SBR	SBS, STE	SBS : Styrene Butadiene Styrene, STE : Styrenic Thermoplastic Elastomer
	BTX(14%)	Benzene	BR	SBS, STE	SBS : Styrene Butadiene Styrene, STE : Styrenic Thermoplastic Elastomer	
			SM	PS / EPS	SM : Styrene monomer, PS : Polystyrene, EPS : Expandable polystyrene	
			LAB	ABS	ABS : AN(Acrylonitrile) + Butadiene+ SM(styrene monomer) copolymer	
			Phenol	LAS	LAB : Linear Alkyl Benzene, LAS : Linear Alkyl Benzene Sulfonic Acid	
			Acetone	IPA	IPA : Isopropyl alcohol(ISU Process)	
			Aniline	BPA	BPA : Bisphenol A	
		Toluene	MDI	MDI : Methylene diphenyl diisocyanate		
			MA	MA : Maleic anhydride		
		Xylene	DNT	TDI	TDI : Toulnediisocyanate	
			O-X	PA	PA : Phthalic Anhydride	
Utility	Methanol	P-X	PTA	Para-xylene, Purified terephthalic acid		
		Acetic acid				
		MTBE		Methyl tertbutyl ether		
		Carbon black		*Usage : Pigment, Dye stuff, Plastic compounding,.etc.		

*NCC : Naptha Cracking Complex

*BTX : Benzene Toluene Xylene

*Crude oil : DUBAI, BRENT, WTI(Western Texas Intermediate)

*Amount of C₂ production represent nation's Cracking Capacity>(*South Korean Capa. Of Ethylene is more than 5million mts/yr)

*C₃ = 50% PP +35% PO + 15% PG and Other Applications