

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma in Plastic Engineering

Semester: 3

Subject Code

Subject Name PLASTICS MATERIALS

Sr. No.	Course content
1.	INTRODUCTION (RHEOLOGY) : 1.1 Rheological properties 1.2 Temperature viscosity relation 1.3 Types of flow 1.4 Measurement of S.P. and M.R. 1.5 Maxwell's Model
2.	THERMO PLASTICS (T.P.) : 2.1 Properties and application of T.P. material : <ul style="list-style-type: none">• Olefins• Vinyls• Styrenics• Acrylics• Cellulosics
3.	THERMO SETS (T.S.) : 3.1 Properties and Application of T.S. material : <ul style="list-style-type: none">• PF• MF• UF• Epoxy• Silicones• Polyesters• Furan• PUR• DAP
4.	ENGINEERING PLASTICS (E.P.) : 4.1 Properties and application of : <ul style="list-style-type: none">• Polyamides• Fluorocarbons• Polyesters• PUR• Acetyl• Carbonates
5.	HIGH PERFORMANCE AND HEAT RESISTANT POLYMERS : 5.1 Properties and application of : <ul style="list-style-type: none">• PEEK• PEK

	<ul style="list-style-type: none"> • PES • PPS • PPO • PVDC • Polyamides
6.	COMPOUNDING : 6.1 Introduction 6.2 Significance and selection criteria 6.3 Additives : Name, Properties, Formulation 6.4 Equipments 6.5 Process 6.6 Trouble shooting

Reference Books:

Sr. No.	Name of Reference	Author
1.	Plastics Material	J. A. Brydson
2.	Plastics Material and Processes	S. S. Schwartz
3.	Engineering Polymer source book	Margolis
4.	PVC compounding	Swan
5.	PVC compounding	Tittow
6.	PVC compounding	Athaley