

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Polymer Science & Technology)
Semester: III
Syllabus with Effect from: June-2013

Paper Code: PS03CPST08	Total Credit: 4
Title Of Paper: Rubber Technology	

Unit	Description in detail	Weightage (%)
I	General Introduction to Individual Rubbers: Introduction & general properties of rubber, Manufacture, structure, properties and application of Styrene butadiene rubber(SBR), Isoprene rubber, Butadiene rubber(BR), Ethylene – propylene rubber, Chloroprene rubber, Acrylonitrile – butadiene rubber, Butyl rubber.	25%
II	Specialty Rubber: polyurethanes, Fluorocarbon rubbers, Epichlorohydrin rubber, Polysulphide rubber, Silicon rubber Manufacture, properties, and application of different thermoplastics elastomers.	25%
III	Rubber Processing: Processing of field latex, preserved field latex, latex concentrate, Ribbed smoked sheets, technically classified rubber, superior processing rubber etc.	25%
IV	Rubber Compounding and Chemistry of Vulcanization: Introduction, vulcanizing agents, Vulcanizing accelerators, Fillers, antidegradents, softeners, plasticizers, processing aids etc. relation between curing system and properties.	25%

Basic Text & Reference Books:-

- Basic Compounding and Processing of Rubber, Harry Long, American Chemical Society, New Jersey.
- Rubber Handbook, Vanderbilt, Vanderbilt World trade cooperation, New York.
- Rubber Technology and Manufacture, C.M. Blow, Butterworth, London.
- Rubber Technology Handbook, Hofman.
- High Polymer Latices, D.C. Blackly
- Applied science of Rubber, William, and J.
- Polymer Processing, Morton Jones. Chapman & Hall.
- Polymer Processing, McKelvey.

