

RGPV (DIPLOMA WING) BHOPAL		OBE CURRICULUM FOR THE COURSE		FORMAT- 3	Sheet No. 1/3
Branch			Semester	III	
Course Code	Course Name		ADDITIVES & COMPOUNDING		
Course Outcome 1	To introduce the basics of polymer additives & their significance.			Teach Hrs	Marks
Learning Outcome 1	To introduce the basic knowledge of additives.				
Contents	Definition of Additives, Importance of additives Classification of additives.				
Method of Assessment					
Learning Outcome 2	To describe properties of Additives.				
Contents	Technical requirements of additives, General effect of additives on properties of plastic, Formulation of additives in different plastic materials.				
Method of Assessment					
Course Outcome 2	To understand the role of Additives used in plastic material for different applications.				
Learning Outcome 1	To study different additives & their representative formulations.				
Contents	Role of Additives as <ul style="list-style-type: none"> • Properties modifier :- Plasticizers, Fillers, Impact modifiers , Extenders • Processing Aids :- Thermal stabilizer, Lubricants, Solvents, Diluents 				
Method of Assessment					
Learning Outcome 2	To understand the role of additives as colouring agents & anti-aging agents in plastic material.				
Contents	Role of Additives as <ul style="list-style-type: none"> • Colouring Agents :- Pigments, Dyes, • Anti-ageing Agents :- Anti-oxidants, Anti-ozonants, U.V. Stabilizer, Bactericides 				
Method of Assessment					
Learning Outcome 3	To study the other miscellaneous additives in plastic materials.				
Contents	Role of Additives as <ul style="list-style-type: none"> • Role of Additives as:- Blowing agents, Flame Retardants, Mould Release agent 				
Method of Assessment					
Course Outcome 3	To select suitable compounding equipments for specific application.				
Learning Outcome 1	To understand the basic of compounding.				
Contents	Definition of Compounding, Need of Compounding, Effects of mixing/ Compounding parameters.				
Method of Assessment					

Learning Outcome 2	To describe the constructional features & working of the compounding equipments.		
Contents	Machines for compounding (construction & working) :- Two Roll mill, Ribben Blender, High speed mixers, Banbury mixer, Kneader, Dispenser, Twin screw extruder (co-rotating, counter-rotating)		
Method of Assessment			
Course Outcome 4	To acquire knowledge of compounding of PVC.		
Learning Outcome 1	To study properties of PVC & ingredients for PVC.		
Contents	Physical & chemical properties of PVC, various ingredients for PVC compounding.		
Method of Assessment			
Learning Outcome 2	To learn modification of PVC properties by compounding.		
Contents	Compounding of Rigid PVC, Compounding of semi-rigid PVC, Compounding of flexible application of PVC, Selecting compounding processes & machines, Effect of process/parameters.		
Method of Assessment			
Course Outcome 5	To impart knowledge of plastic for product application.		
Learning Outcome 1	To understand the usage of plastics in product application		
Contents	Product application in agriculture fields, Product application in packaging fields & Product application in building fields.		
Method of Assessment			
Learning Outcome 2	To study the application of plastic products.		
Contents	Product application in automotive fields, Product application in medical fields & Product application in furniture fields.		