

Light Resin Transfer Molding Body of Knowledge

Module 1: General Composites Knowledge (5%)
<ol style="list-style-type: none"> 1. History and basic understanding of the composites industry 2. Why composites are unique 3. Advantages of composites
Module 2: Composites Manufacturing Processes (10%)
<ol style="list-style-type: none"> 1. Open Molding 2. Closed Molding 3. Manufacturing process recognition
Module 3: Composite Materials Identification (10%)
<ol style="list-style-type: none"> 1. Materials, reinforcement, selection, orientation, advantages 2. Resin systems, initiators, curing agents, measurements, applications 3. Core materials and laminate bulkers
Module 4: Light Resin Transfer Molding Process and Production (20%)
<ol style="list-style-type: none"> 1. Darcy's Law 2. Light Resin Transfer molding process 3. Light Resin Transfer Molding production cycle
Module 5: Tooling and Equipment for LRTM (20%)
<ol style="list-style-type: none"> 1. Design for Light Resin Transfer Molding 2. LRTM Tooling, tool building basics, tooling materials, plug or master to build tooling, construction of tooling 3. Standard and accessory fittings 4. Vacuum pumps 5. The vacuum system 6. Mix and metering delivery of resins
Module 6: Materials for LRTM (15%)
<ol style="list-style-type: none"> 1. Reinforcements, resins, initiators and curing agents 2. Fillers 3. Core materials and laminate bulkers
Module 7: Gel Coat Application (10%)
<ol style="list-style-type: none"> 4. Introduction to Gel Coating 5. Gel Coating Safety, use, storage, handling 6. Raw material quality assurance 7. Spray gun setup, spraying technics 8. Gel coat application methods, spraying technics 9. Gel coating for Light Resin Transfer Molding
Module 8: LRTM Troubleshooting (10%)
<ol style="list-style-type: none"> 1. Quality methods for Light Resin Transfer Molding (LRTM) 2. Troubleshooting in Light Resin Transfer Molding