

RITESH TIWARI

Rapid Polymers – Masterbatches
(Unit of Rapid Engineering Company Pvt. Ltd.)
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I, as an Executive New Product Development Engineer, currently working in Rapid Polymers Masterbatches (Unit of **Rapid Engineering Company Pvt. Ltd.- RECPL**) with 3 Years of experience in field of New Product Development and reverse engineering of Thermoplastic and Thermoset powder coatings more-over with color development against any product or master batch samples as per their technical specification and compliances.

COURSE OF ACTION

- Resin Analysis for Coatings
- Identification of base resin for Coatings
- Glass Transition & Acid Value Evaluation
- Color Development for Plastic Masterbatches as well as Thermoplastic & Thermoset Coatings
- Pigment Dyes' Applicability & their Chemical attributes for Thermoplastic, Thermoset Coatings & Plastic Masterbatches.
- Color Analysis & Dev-**Spectrophotometer- Datacolor 750**
- Hands-on Instrumental Experiences-
 1. Particle Size Distribution- **Microtrac S3500**
 2. Thermal Analysis-Resin- **SDT650 TA DSC-TGA**
 3. Resin Analysis-**Nicolet iS5-FTIR Thermoscientific**
 4. Moisture Analysis – Resin/Color – **HE153 Mettler**

WORK EXPERIENCE

July 2019- Present

R&D Executive-NPD (New Product Development)

Rapid Polymers Masterbatches (Unit of Rapid Engineering Company Pvt. Ltd.-RECPL) Noida, India

I got placed in Rapid Coat Division (Unit of Rapid Engineering Company Pvt. Ltd.) through campus drive with 2 months of experience as an intern in govt. body **RDSO LUCKNOW** and as an Industrial Trainee in **LOHIA** Group, **INJECTO PLAST KANPUR**.

Responsibilities

- To analyze and develop a new color master-batch and thermoplastic powder sample and to develop a new equivalent sample that can fulfill the compliances and end application requirements.

- Specialized Black-Thermoset Powder Coatings.
- Application of **DATACOLOR- Tools** software to successfully develop, analyze and produce P/F report. To give competitive price against any new enquiries.
- To deal with trial sample of a newly developed master-batch sample and to provide end to end solution to customers.
- Validation and uses of pigments and dyes in the field of powder coatings – Thermoplastic, Thermoset & Plastic Masterbatches.
- Qualitative and quantitative analysis of different type of master-batch and end product sample using FTIR, TGA, DSC, PSD.
- QC report of an online product development.

Accomplishment

- Successfully developed master-batch sample that ended up giving business to same organization.
 - Formulated a **High Adhesion Polymer alloy - HAPA** for better adhesion & chemical bonding on Metal Surfaces.
 - Some-top notch developments are for **Samsung, Bluestar, Doval Closures, Radico Khaitan, Bisleri Cap** etc.
 - Design of New Product Development- Register for Thermoplastic Powder and Master batches as per **ISO**.
 - Additive analysis and suggestion which proved to be productive in different application
 - Preparing master-list for suppliers and manufacturer of pigments and dyes'
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INTERSHIPS

June 2017-July 2017

Research Trainee

(Research Design and Standards Organization Lucknow, India)

- Mechanical testing of polymer and rubber in an NABL accredited lab.
- Introduction to paint laboratory.
- Polymer classification and characterization techniques such as TGA, DSC, FTIR, PSD, XRF, MFI, Moisture analysis, HDT.
- Validation and testing of glass-filled Nylon application in railway- track assembling.
- Report generation, submission and certification by **RDSO**.

Advisor: Rajesh Srivastava(Dy. Director, M&C)

June 2018-July 2018

Industrial Trainee

(LOHIA GROUP, Injectoplast Kanpur)

- Classification on Injection Molding Machines.
- Report generation and study of Gas Assist Injection Molding.

- Industrial documentation report filling for ISO audit.
- Different specialized material applications.
- Thermoset Injection Molding.
- Certification by HR & ADMIN: Omkar Singh

Advisor: Purnanand

(Production Manager, Polymer Technology)

Purna1990@gmail.com

EDUCATIONAL DETAILS

July 2015-June 2019

Bachelor of Technology

Plastics Engineering

Central Institute of Petrochemical Engineering & Technology, Lucknow India

Department of Chemicals and Petrochemicals

Ministry of Chemicals and Fertilizers, Govt. of India

APJ Abdul Kalam Technical University, Uttar Pradesh, India

Bachelor's Project: Development of conductive membrane of EVA filled with carbon black and Expanded graphite for flexible energy storage devices.

(aggregate: 74.44%)

Advisor: Dr. Smita Mathur ([+91-9336516869](tel:+91-9336516869))

July 2012-May 2014

Higher Secondary Examination (aggregate: 84.80%)

New Public Inter College, Lucknow, Uttar Pradesh, India

July 2010-May 2012

Secondary School Examination (aggregate: 83.83%)

New Public Inter College, Lucknow, Uttar Pradesh, India

AWARDS & ACHIEVEMENTS

- Awarded merit certificates in 10th standard and for being **1st position Holder** in 12th standard Examination.
- Conferred with silver and gold medal with certificates in 9th and 11th standards respectively in state level

examination organized by [GAYATRITEERTH, SHANTIKUNJ, HARIDWAR](#).

- School College and Inter-College Level certificates.
- Participation in Institutional Training Programs on [Oil Conservation](#) Organized by [Petroleum Conservation Research Association \(Ministry of Petroleum & Natural gas. Govt. of India\)](#)
- Attended Different Seminar held on [Polymeric smart and Nano materials](#), [Workshop on Virtual Laboratory](#) by IIT KANPUR, [Introduction to Design Thinking & Creativity](#) by classified Professors of CIPET Lucknow Institute.
- Software Course on [AUTOCAD, Pro-E, and UNI-GRAPHICS-NX&CATIA](#) programs.
- [GATE 2019](#) qualified and offered with admission in M-Tech Schools of material science [IIT BHU & IIT PATNA](#).

SKILLS & KNOWLEDGE

- 🔗 **Instrumental Skill:** [Spectrophotometer, Haze & Gloss meter TGA DSC, FTIR, PSD, MFI, Lab scale processing M/C](#)
- **Technical Skill:** [Conversant with MS office](#)
- **Language Known:** [English \(Fluent read & write\), Hindi \(Mother Tongue\)](#)

CO-CURRICULAR ACTIVITIES & RESPONSIBILITIES

- Co-Ordinator of sports fest [CAPOEIRA'17](#)
- Organizer of events at cultural fest [ANANT'17](#)
- Team Leader in documentary making at cultural fest [ANANT'17](#)

REFERENCES

- **Shivansh Srivastava**
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- **Kavish Chauhan**
Assistant Manager, UFLEX Film Division
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