MICHAEL PRASATH
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Career summary

Plastic Technologist, having 8 years experience in R&D, NPD, VA/VE, failure analysis of polymer parts. Proficient in preparing new polymer compound formulation, mechanical and thermal properties analysis, bench-marking, designing plastic parts and dies. Well organized professional with an eye for R&D, New Product Developments and Projects management.

Equipment's Exposure

- DSC, TGA
- FTIR
- UTM
- Micro Rubber Hardness
- Impact Tester
- Haake thermal stability
- HDT

Experience

Assistant Manager-R&D **Dec 2020 to present**
Formulated Polymers Ltd /
Chennai, India

1. Designing and conducting experiments towards the development and improvement of custom polymer compounds (N6, N66, PP, PPO, ABS)
2. Coordinate and perform mechanical, thermal and Flammability properties checking and analysis of polymeric materials and products.
3. Create standards and specifications for processes, facilities, products and test.
4. Install, maintain and inspect equipment's and facilities, perform routine calibration and troubleshooting of instruments.
5. Support new products and assist manufacturing with production implementation and collaborate with multi-faceted team in the development of new products
6. Evaluate current processes and develop improvements for safety, quality and efficiency

Polymer Engineer
Lucas TVS Ltd / Chennai, India **March 2017 to Dec 2020**

1. Polymer parts development, material selection, spec creation, failure analysis and bench-marking in starter motors, alternators & wiper motors.
2. Polymer testing, analysis, compile & maintain test data and prepare reports.
3. Support existing process technologies, analytical needs, failure analysis
4. Taking ownership of DSC, FTIR, Rubber Micro hardness tester and Analytical balances
5. Problem identifying in existing polymer parts, recommend improvement actions which enhance the quality, reliability or cost effectiveness.
6. Project development engineer in ASPIRE (VA/VE) projects - Projects identification, consolidation, savings estimation, samples development, testing and validation, bulk trails, management approval, customer approval, stock control, implementation, savings accounting and feedback monitoring.

Application Development Engineer
GHARDA CHEMICALS Ltd / Mumbai, India **Jan 2014 to March 2017**

1. R&D team member for designing of the polymer compounding and formulations (development trials & analysis - PEK, PEKK, PEI, PBI)
2. Proficiency in injection molding process. Extrusion process used for compounding (twin screw) and profile extrusion (single screw).
3. Know the differences in molecular structure and in cross-linking density and the associated characteristics during processing and use.
4. Trail of new die, components & new product validation as per specification etc.
5. Test specimen making as per ASTM, ISO Standard by using injection molding and compression molding machines

Key Skills

- Expertise knowledge of polymer materials.
- Have knowledge of polymer compounding ingredients & their effect on the properties of compound & an end application.
- Giving opinion during quality issues and technical queries of the internal team as well as quality, purchase, marketing & suppliers.
- Bench-marking the competitor's products whose equivalence to be developed.
- Ability to handle situation independently, work in multi-tasking environment.

Project activities & Achievements

- Implemented various VA/VE projects with proper validation tests, without compromising customer requirement (Handled both Metallic and Non-Metallic parts)
- Solved the quality issue by integrating TC holder with brush plate
- Sealant elimination done in cover plate molding by In Situ molding process
- Successfully reduced the hardness & stress cracking of the rods (PEK rods) by changing the process parameters and annealing systems.
- Commercially produced the PEK-GR rods by varying the composition of ingredients in compounding, without any defective in the application.

Academic details

B.Tech (Plastics Technology) (2013) **CGPA-7.6**
CIPET, Chennai

HSC (2009) **87.25%**
St.Mary's Hr. Sec. School, Madurai

SSLC (2007) **89%**
St.Mary's Hr. Sec. School, Madurai

Other Activities

- ☐ Presented a paper on the topic of GRUB HANDLES at ANNA UNIVERSITY-MIT campus, Chennai.
- ☐ Presented a paper on the topic of Recycled Mixed Plastics Waste (MPW) Polymer Sleepers for Application on Rail Tracks & Grinder Bridges at Crescent Engineering College, Chennai

UG Project

Title: Effect of Nano clay On the Mechanical Properties of Cotton/Sisal Reinforced Polypropylene Composites at CIPET, Chennai.

Description: Worked as a project leader, as well as an equal member of a three-person team to produce a biodegradable polypropylene for the low-cost automotive application.

Software skills

- AutoCAD 2010
- Pro-e wildfire 4.0
- CATIA V5
- Solid Works
- Mould Flow Insight 2010
- MS Excel,
- MS Word
- Power Point

Interests

- Reading books
- Volunteer work
- Sports

Personal Details

Date of Birth: 02-02-1992
Languages: Tamil, English, Hindi, Marathi
Marital status: Married

Declaration

I hereby declare that above-mentioned information is true to best of my knowledge & Belief

Date: (Michael Prasath)
Place: Signature