



The Smarter Cleanroom Compounder



Introduction

INNOVATIVE POLYMER COMPOUNDS (IPC) is *The Smarter Cleanroom Compounder.*

IPC is dedicated solely to the Medical Device Industry. We work with Designers, Moulders and Extruders.

IPC is ISO 13485 certified.

IPC Specialises in Short Lead-times and Small Lots, working together with its customers from Concept through R&D all the way to Production.

Smarter Devices deserve Smarter Compounds.

4C formula

IPC offers an unbeatable value proposition for your exacting Medical Polymer Compound requirements based upon our 4C formula:

Compliance

By operating to ISO 13485 and ISO 9001 standards from our purpose built state of the art Clean room facility, IPC assures your compliance needs are met.

We manufacture, test, pack and store in a Class 100k facility in Kilbeggan, County Westmeath, Ireland close to the Irish Medical Device clusters.

Commitment

We work with Medical Device Designers committing to them at the concept and design stage and working with them through prototyping, certification, scale up and transfer to production.

Capability

Our ability to produce in small lots with short lead times supports our customers' development needs.

IPC can process most thermoplastic polymers ranging from advanced resins such as PEEK down to basic resins such as PE. Other resins include bio-polymers such as PLA & PHA. We have processed materials from all leading suppliers including:

Arkema, BASF, Bayer, Dow, Du Pont, EMS, Grivory, Evonik, Lubrizol, Lyondell-Basell, Sabic, Solvay, TOPAS.

IPC has produced over 500 custom compounds to date for our Customers all over the world.



Mann+Hummel Drying System

IPC conducts its own colour matching achieving tighter and more consistent colour tolerances to customer requirements using a base range of FDA approved pigments, enabling us to offer short lead times and smaller batch quantities.

IPC compounds a complete range of additives into polymers at loadings of up to 70% with feeding tolerances as low as 0.1%. Typical additives for Radio Opaque applications are Barium Sulphate, Bismuth Oxychloride, and Tungsten. Other additives include Anti Microbial Colour Masterbatches, Pigments, Nano-fillers and Processing Aids.



Capacity

Our equipment includes Mann+Hummel and Novatec Dryers, K-Tron Gravimetric Feeders, Leistritz compounding systems, Gala and Rieter Pelletisers.

Accurate monitoring and control of polymer and additive moisture content are paramount. At IPC we employ closed loop continuous Mann+Hummel drying equipment with agitated drying hopper, in addition to Novatec batch drying to pre-treat materials.



Leistritz Compounder, K-tron Gravimetric Feeders, Gala underwater Pelletiser

Feeding is accurately achieved by 4 K-Tron gravimetric dosing units – each capable of feeding granulate, powder or crumb.

Using a high temperature model Leistritz Twin Screw Compounder ZSE 27 MAXX – 40 L/D, we can process demanding polymers at process temperatures up to 430 degrees C.

Compound batch-to-batch consistency is paramount and is tightly controlled within all aspects of the operation. Compounding process stability is achieved by using the Leistritz' built in Siemens S7 PLC controllers with alarm indicators on all major process parameters.

Compounds can be produced in micro-bead or in strand pelletised format.

To ensure Compounds reach our Customers securely, the option of vacuum foil bags in heavy duty outer cartons is available.

Our laboratories allow physical property testing to ASTM & ISO Standards for Tensile, Moisture, Melt Flow, Rheology, Hardness, Dispersion and Colour properties.

Our Mission Statement

To be the most Innovative, Respected, Responsive, and Quality driven supplier of Medical Polymer Compounds and R&D Support to the Medical Device community Worldwide, based upon our 4C Formula - Compliance, Commitment, Capability and Capacity.





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Members of The Irish Medical Device Association (IMDA).