Polymer Institute Brno (PIB) is a chemical research company and polymer additive master-batch producer with long tradition that started already in 1956 as Research Institute of Macromolecular Chemistry. Since January 2016, PIB has been incorporated into Unipetrol Group as a branch office of the Unipetrol RPA company. In 1992 PIB started to develop and manufacture customized products for plastics industry such as additive and colour concentrates, flame retardant compounds, filled or reinforced plastics and special composites always utilizing support of own research capacity. PIB has now more than 300 clients and with its focus on innovation and functionality, company is well received on the Czech market as one of leading commercial plastics solution provider with industrial know-how based on excellent technical base and experienced staff. In 2000 PIB has implemented Quality Management System according to ISO 9001.

Product range consists of filled materials, special composite materials, flame retardant compounds, colour concentrates and additive masterbatches (stabiliser, antistatic, nucleation, slip agents, filler, etc.). The modification and colouring of plastics is carried out on twin - or single - screw extruders enabling the compounding of a variety of resins, such as PE, PP, PS, ABS, PA, PC and PET. The basic product range is offered under the following trade names:
**MAKROSTAB®**

Stabiliser masterbatches (UV and Thermo) are used for increasing the resistance of plastics against thermooxidative and UV degradation. The **MAKROSTAB®** masterbatches represent a simple and efficient solution to the additional stabilisation of polymers that are successfully used in all processing technologies, e.g. injection and blow moulding, sheet extrusion, raffia or fibre production.

**MAKROSTAB® THERMO**

are masterbatches containing antioxidants intended to improve the processing, long-term heat or other, special - e.g. nonextractable, thermooxidative stability of the polymer.
MAKROSTAB® UV

are stabiliser masterbatches used for increasing the UV stability of polymer. Their application is recommended in all cases where the basic stabilisation from the resin producer is insufficient for a given application.
Flame retarded masterbatches (MAKROFLAM FR) and flame retardant compounds (MAKROFLAM) are two families of materials with reduced flame propagation, dripping or smoke generation achieved by adding of halogen free or halogenated flame retardants.

Masterbatches MAKROFLAM FR are suitable for use with many types of polymers to meet FR standards like glow wire test, vertical flame test according to UL94 or many other standards related to electrotechnical, building or engineering applications.
MAKROPLUS® A

Concentrates of various antistatic and antifogging agents and their combinations.
MAKROPLUS® C

ELECTROCONDUCTIVE, PERMANENTLY ANTISTATIC or DISSIPATIVE PLASTICS

Composites containing Chezacarb electroconductive carbon black.
MAKROPLUS® F

Family of mineral filled or fibre reinforced plastic composites.
MAKROPLUS® L, RA
MAKROPLUS® L, RA

LUBRICANT / DEMOULDING AND LUBRICANT AGENT

Facilitates the plastics converting operations at various technological stages, reduces coefficient of friction. Decreases adhesion to metal surfaces and eases demoulding.
MAKROPLUS® N

Influences significantly the rate of crystallisation, controls size of spherulites and transparency of semicrystalline polymers, increases heat resistance of plastic parts, reduces production cycle time.
MAKROPLUS® OXO

Concentrate of prodegradants and hydrophillic agent accelerating oxo degradation of HDPE a PP.
MAKROPLUS® ANTISLIP
MAKROPLUS® ANTISLIP

Increases coefficient of friction of PE packaging film.
MAKROPLUS® LA
MAKROPLUS® LA

Additive concentrate for laser marking of various plastics (PP, PE, PC, PET-G, PA).
**MAKROCORR®**

**MAKROCORR®** concentrate of contact and vapour pressure metal anticorrosion system (VCI) determined to increase anticorrosion protection of plastic packaging materials predominantly made of polyolefins (LDPE, LLDPE, HDPE).

Packaging articles containing **MAKROCORR®** protect metallic products made of:

- iron and its alloys
- aluminium and its alloys
- zinc
- copper
- brass
THERMOBREAK® is a specialty preparation preventing polymer degradation inside the extruder during production breaks. Prevents formation of black specks and considerably reduces the time-period necessary for extruder purging. Available on both PP or LDPE carriers.
MAKROPORE®

Concentrates of chemical blowing agents.
MAKROCLEAN®
MAKROCLEAN®

Pelletized extruder purging agent for polyolefin processing.
MAKROBRITE
MAKROBRITE

Optical brightener concentrates. Recommended for transparent or light coloured plastic products. Mask initial colour of some plastics that is often slightly yellow and increase brilliancy of light coloured or even black pigmented articles.