

FOOD &
BEVERAGE

Food Grade Materials

**Engineering plastic stock
shapes for the Food Industry**

compliant to European Union Regulation (EU) 10/2011



Our Food Grade materials provide certification on highest safety level

Addressing to the very high quality and safety standards in the food industry, the Mitsubishi Chemical Group (MCG) Advanced Materials Division has updated its range of Food Grade plastics according to Regulation (EU) 10/2011: all Food Grade products are processed and handled according to this regulation and to the guidelines of GMP (Good Manufacturing Practice).

Every delivery is accompanied by a Declaration of Compliance with the Order (DCO) - full traceability guaranteed – and a Declaration of Compliance (DoC) according to the Food Regulation (EU) 10/2011. Customers get a wide selection of products and design possibilities to reach the best possible costperformance- ratio. Furthermore, MCG Advanced Materials provides help for migration calculation.

Certified plastic materials for safe and cost-effective production

Trends in food processing & packaging

The efficiency in production and the quality of products has considerably improved in the food industry in recent years. Newly developed high performance engineering plastics have made significant contribution to this. In modern food production systems, plastic products support essential process steps such as processing, handling, conserving, packing and storing. Consumers already benefit from these improved processes and rightfully expect the highest possible safety standards in the production of food and beverage products. Trends such as global raw material imports, differences in control rules and incomplete legislation negatively influence the quality assurance in these sensitive sectors.

European Union Regulation (EU) 10/2011 enables production safety

Historically, for plastics in direct contact with food products a harmonized European legislation had been valid for about ten years and was implemented nationally by the member states, thus enabling common standards: the Directive 2002/72/EC.

To better monitor the processes in future, European legislation has made changes in the regulations for safety in food production. Since May 2011 these apply to all European Union member states. They replace the Directive 2002/72/EC and are now summarized under the Regulation (EU) 10/2011. FDA approvals are not affected by the new regulation and remain unchanged.



Good Manufacturing Practice (GMP)

MCG Advanced Materials produces semi-finished stock shapes and manufactures customized finished parts according to the guidelines of GMP. These guidelines are part of a quality system covering the manufacture and testing of food products. GMP guidelines guarantee highest quality standards of our Food Grade products. Complete documentation from choice of raw material to finished parts allows full traceability and supports your own product control efforts.




Declaration of compliance

MCG Advanced Materials is constantly developing product and application solutions that help you improve your production performance – today and in future. Our Food Grade program fulfills the documentation requirements that are valid since 2016. Every delivery is accompanied by a Declaration of Compliance according to Regulation (EU) 10/2011 which is a further development of Directive 2002/72/EC for plastic materials in contact with food and includes much stricter test conditions for migration.

Declaration of compliance with the order guarantees traceability

The declaration of compliance with the order ensures the uninterrupted traceability of the plastic product from the stock shape back to the raw material used by batch. At MCG Advanced Materials each production step is reliably tested and documented. This traceability is required by law for modern food processing. Each product is marked with material type, production lot and size. Each delivery comes along with a declaration of compliance with the order according to EN 10204-2.2

 <p>MITSUBISHI CHEMICAL GROUP</p>	 <p>03000110279</p>
TVNAT PL UV1000 50x1Mx2M PLN E	Lot 8475105

Customer benefits

- **Broadest portfolio of certified food grades**

Food processors profit from the broadest portfolio from PE up to PEEK materials and best established know-how in the industry. MCG Advanced Materials constantly works on innovation of specialised engineering plastics. Our offering contains special developments like 3-way detectable VMX materials (visual, metal, X-ray) and antistatic materials, and is an ongoing development in close cooperation with our customers.

- **Product safety through Good Manufacturing Practice (GMP)**

Product safety for you: All shapes and finished parts made from MCG Advanced Materials' Food Grades are produced according to most modern production standards including consistent quality control (GMP).

- **Declaration of compliance**

Every delivery is accompanied by a Declaration of Compliance according to latest regulation status. This declaration considerably reduces your own in-house testing time and costs. We provide the declaration including the complete test conditions.

- **Material selection and application consulting**

Customers benefit from our international partner network that helps OEMs select the right material for their application. Our application advice considers the individual type of food that gets into contact with the plastic parts. Consulting is based on temperature and food contact time of your individual application.

- **Migration calculation support**

Migration = Out-leaching of substances from solid contact material into the food stuff.

Product safety on all stock shapes:

The independent, external laboratory INTERTEK has tested the migration values of all MCG Advanced Materials' Food Grades. These tests were performed according to regulation (EU) 10/2011. Their results are stated in our Declaration of Compliance. Your own calculation of the migration value in your individual application becomes very easy with the help of these pre-tested values.

The migration tests on our Food Grades include testing per OML and SML guidelines:

OML = Overall Migration Limit: measures the inertness of a material

SML = Specific Migration Limit: proves the toxicological evaluation of individual substances

The MCG Advanced Materials Division, however, can only offer calculation support and give material recommendations. The final choice of material used in a specific application is the customer's own responsibility.

- **Stock availability**

We offer a wide range of standard and sub-standard formats, most of them available from stock. Please consult us for further details.

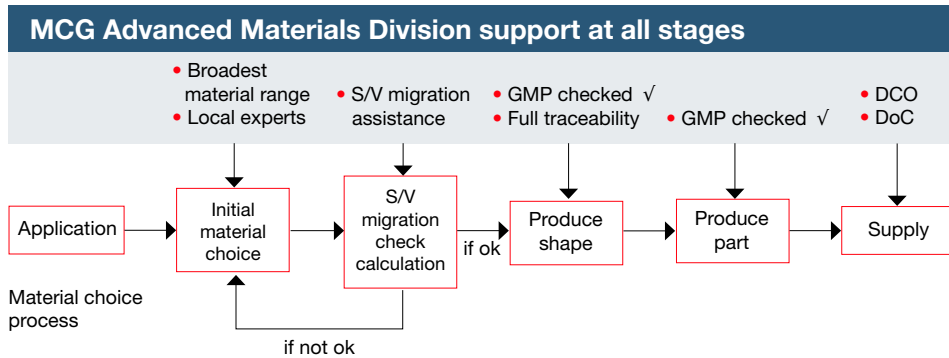


**More than 30 Food Grade Products from MCG Advanced Materials Division –
More than 30 options for your successful production process**

STOCK SHAPES	BASE POLYMER	FOOD GRADE (1)	FDA COMPLIANT (2)
Ketron® 1000 Food Grade PEEK natural	PEEK	+	+
Ketron® 1000 Food Grade PEEK black	PEEK	+	+
Ketron® TX Food Grade PEEK blue	PEEK	+	+
Ketron® VMX Food Grade PEEK blue	PEEK	+	+
Techtron® 1000 Food Grade PPS natural	PPS	NT	+
Techtron® HPV Food Grade PPS blue	PPS	+	+
Sultron® Food Grade PPSU black	PPSU	+	+
Sultron® Food Grade PSU natural	PSU	NT	+
Duratron® U1000 PEI Food Grade natural	PEI	NT	+
Fluorosint® 207 Food Grade PTFE white	PTFE	-	+
Fluorosint® HPV Food Grade PTFE tan	PTFE	NT	+
Ertacetal® C LQ Food Grade POM-C natural	POM-C	+	+
Ertalon® 6 SA Food Grade PA6 natural	PA 6	+	+
Ertalon® 66 SA Food Grade PA66 natural	PA 66	+	+
Ertalon® 6 PLA Food Grade PA6 natural / blue	PA 6	+ / +	+ / +
Nylatron® VMX Food Grade PA6 blue	PA 6	+	+
Ertacetal® C Food Grade POM-C natural / blue / black	POM-C	+ / + / +	+ / + / +
Ertacetal® C Food Grade POM-C - other colors	POM-C	NT	+
Acetron® VMX Food Grade POM-C blue	POM-C	+	+
Ertalyte® Food Grade PET natural / black / blue	PET	+ / + / +	+ / + / +
Ertalyte® TX Food Grade PET grey	PET	+	+
TIVAR® 1000 Food Grade UHMW-PE natural / blue 7020 / green 3010 / green 3060 / red 2030 / yellow 6030	PE-UHMW	+ / + / + / + / + / +	+ / + / + / + / + / +
TIVAR® 1000 antistatic Food Grade UHMW-PE black	PE-UHMW	+	-
TIVAR® DS Food Grade UHMW-PE yellow	PE-UHMW	+	+
TIVAR® Cestidur Food Grade UHMW-PE grey	PE-UHMW	+	+
TIVAR® H.O.T. Food Grade UHMW-PE white	PE-UHMW	+	+
TIVAR® CleanStat Food Grade UHMW-PE black	PE-UHMW	+	+
TIVAR® 1000 ASTL Food Grade UHMW-PE black	PE-UHMW	+	-
TIVAR® EC Food Grade UHMW-PE black	PE-UHMW	+	-
TIVAR® VMX Food Grade UHMW-PE blue	PE-UHMW	+	+
TIVAR® OilFilled Food Grade UHMW-PE grey	PE-UHMW	NT	+
TIVAR® CleanStat White Food Grade UHMW-PE	PE-UHMW	-	+
TIVAR® HPV Food Grade UHMW-PE blue	PE-UHMW	+	+
PE 500 Food Grade HMW-PE natural / blue 7020 / green 3060 / red 2025 / yellow 6030	PE-HMW	+ / + / IT / + / +	+ / + / + / + / +

+ Complies with the requirements of the regulations.
 - Does not comply with the requirements of the regulations.
 NT Has not been tested according to the requirements of their regulations.
 IT Tests according to the requirements of the regulations are on-going.

[1] Food Grade: MCG Advanced Materials' European "Food Grade" designated products comply with the requirements mentioned in the Regulation [EC] No 1935/2004 and the Regulation (EU) 10/2011. Further our "Food Grade" products are manufactured according to Good Manufacturing Practice [GMP] as set out in Regulation [EC] No 2023/2006.
 [2] This column gives the compliance of the raw materials used for the manufacture of the MCG Advanced Materials stock shapes with respect to their composition as set out in the United States of America (FDA) for plastic materials and articles intended to come into contact with foodstuffs.



Our experts are ready to help

We provide a wide range of polymer-based advanced materials, unrivaled expertise and access to industry-leading tools and technology.

To boost your food processing safety and efficiencies: contact@mcam.com

To find out more about our food compliant materials portfolio, visit: www.mcam.com/en/industries/food-pharma

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