

M-CYCLOSE® rPMMA 010 RC53 bk

Preliminary technical description

Product description

M-CYCLOSE® rPMMA 010 RC53 bk:	PCR PMMA compound for injection moulding
Applications:	Technical parts etc.
Suitable for:	Injection moulded parts

Properties

	Standard	Unit	rPMMA 010 RC53 bk
Recycling content	-	%	53
Appearance	-	-	black
MFR (230 °C/3.8 kg)	ISO 1133	g/10 min	1.0
Density	ISO 1183	g/cm ³	1.15
Tensile modulus (1 mm/min)	ISO 527-1/-2	MPa	1,500
Yield strength (50 mm/min)	ISO 527-1/-2	MPa	34
Strain at yield (50 mm/min)	ISO 527-1/-2	%	5.5
Strain at break (50 mm/min)	ISO 527-1/-2	%	53
Charpy unnotched impact strength (23°C)	ISO 179-1/1eU	kJ/m ²	68-74
Charpy notched impact strength (23°C)	ISO 179-1/1eA	kJ/m ²	5-7
HDT - B	ISO 75/B	°C	80-85

The information given here is only valid for M-CYCLOSE® grades in their original packaging, sold by BIO-FED® and/or its authorized partners. If M-CYCLOSE® grades are mixed in any capacity with foreign material, beside masterbatches recommended by BIO-FED®, BIO-FED® declines any further responsibility. M-CYCLOSE® grades shall be stored in dry, closed rooms in closed packaging in original state. For keeping the product properties, the material must be protected against direct sun and the temperature must not exceed 50 °C at any time during transport and storage. M-CYCLOSE® grades have a remaining shelf life of twelve (12) months at room temperature (23 °C) from the delivery date. We recommend that products made of M-CYCLOSE® grades shall be stored under same conditions. Please note that the use of M-CYCLOSE® might influence the mechanical and/or optical properties of the final part.

The information contained herein is based on our current knowledge and experience. A legally binding promise of certain characteristics or suitability for a concrete individual case cannot be derived from this information. The information supplied here is not intended to release processors and users from the responsibility of carrying out their own tests and inspections in each concrete individual case. BIO-FED®, M-VERA®, M-BIOBASE®, M-CYCLOSE®, AF-Eco®, AF-CirColor®, AF-CirCarbon® and AF-CirComplex® are registered brands of AKRO-PLASTIC GmbH.



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Preliminary processing guide

Processing recommendations

Safety precautions:

- Processing at a melt temperature not higher than 260 °C
- Processing with adequate ventilation

Handling:

- Keep package sealed until use
- Reseal opened package of the M-CYCLOSE® product directly after use

Drying:

- This M-CYCLOSE® product should be dried at 80 °C for 2-6 h by using a vacuum dryer or purging with dry air (dew point -35 °C)
- Recommended humidity below 0.05 %

Delivery & storage:

- Supply in 25 kg foil-aluminium bags or 1 ton octabin with PE-inliner
- To be stored in dry place, protected from heat and direct sun radiation

Start-up:

- Ensure that the barrel and screw (and hot runner, if applicable) are clean
- Change the temperature to recommended settings
- Start transition while purging the screw, when the temperatures are within 10 °C of desired range

Equipment:

- M-CYCLOSE® grades are designed for standard equipment

Interruption & shut-down:

- Never leave M-CYCLOSE® product in the extruder for a longer period, e.g. over night
- By interruption for a considerable time, empty the barrel and reduce temperature by 50 °C (Please, do not forget to increase afterwards.)

Processing temperatures

Grade	Mould temp.	Nozzle	Zone 3	Zone 2	Zone 1
rPMMA 010 RC53 bk	60-80 °C	250-230 °C	250-230 °C	240-220 °C	240-220 °C



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