

CERTIFICATE

Recyclability of Packaging Material

TOPAS Advanced Polymers GmbH
Am Prime Parc 9
65479 Raunheim | Germany

The company receives the certification of recyclability for the following packaging material:

Designation

Cyclic Olefin Copolymers (COC)

- Polymers with norbornene contents ≤ 50 mol% and ethylene contents ≥ 50 mol%
- As blend component or layer in PP-based packaging applications

Test result

Assessment via paths:	Path 3: Polypropylene Path 7: Mixed Polyolefins / Mixed Plastics (flexible)
Recyclate (final product):	PP and MPO regranulates

Test standard:

- Requirements and assessment catalogue of the cyclos-HTP Institute** for EU-wide certification

Within the certification process, conformity with the following standards was also checked:

- DIN EN 13430** with regard to material recyclability in the post-use phase; also integrated

The following reference processes, materials and applications are taken into consideration within the certification process:

- Detection as PP packaging in state-of-the-art sorting plants
- Recyclate use for injection moulding applications
- Commercial PCR-based PP recyclate as reference
- Test program based on APR test protocol FILMS1-BG01 with the use of PCR-based PP recyclate as reference

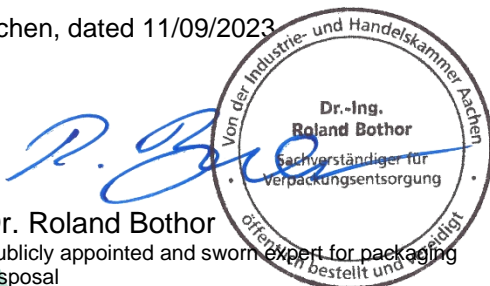
According to the CHI standard the plastic material is a valuable material in the tested application and can be considered as:

Fully Recyclable for PP and MPO Recycling

This certificate (No. 2171-2020-001720-W3) is valid until the **30/09/2024** (1 year upon issue).

This certificate will lose validity in case of qualitative or quantitative changes of material components.

Aachen, dated 11/09/2023



Dr. Roland Bothor
Publicly appointed and sworn expert for packaging disposal

Competent authority:
Chamber of Industry and Commerce, Aachen

The detailed results are documented in the corresponding test report (No. 2171-002-2020).

CHI | cyclos-HTP Institute

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ANNEX

to Certificate No. 2171-2020-001720-W3

Document history

2171-2020-001720 Certificate TOPAS COC for PP pck (date: 28/08/2020)

- Original certificate document with test report No. 2171-002-2020

2171-2020-001720-W1 Certificate TOPAS COC for PP pck (date: 28/07/2021)

- Re-certification for one further year without updated or revised test report No. 2171-002-2020

2171-2020-001720-W2 Certificate TOPAS COC for PP pck (date: 26/07/2022)

- Re-certification for one further year without updated or revised test report No. 2171-002-2020

2171-2020-001720-W3 Certificate TOPAS COC for PP pck (date: 11/09/2023)

- Re-certification for one further year without updated or revised test report No. 2171-002-2020
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