

CERTIFICATE

Recyclability of Packaging Material

Envalior Deutschland GmbH
CHEMPARK Dormagen
41538 Dormagen | Germany

The company receives the certification of recycling compatibility for the following material:

Designation

Polyamide Copolymer PA6/IPDI

Including the Envalior grades Durethan C38F, C38FA, C38FAM, C38FKAM, C38FKS

as layer in coextruded PE-based packaging films; in combination with ≥ 0.3 g per g PA of maleic anhydride-grafted PE as tie layer specified for PA/PE.

Test result

Assessment via path: Path 1: Plastic films / LDPE

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:

- Minimum standard for measuring the recycling capacity** of the ZSVR (state 31/08/2023); also integrated.
- 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:

- Recyclate use for injection moulding and blown film applications.
- Test program based on CHI test method **CHI-C8-PEF-1** with the use of PCR-based LDPE recyclate as reference.

The PA was tested with up to 37 % by weight as component in a packaging sample and after recycling with up to 11 % by weight as part of a PCR LDPE recyclate.

According to the CHI standard, this PA resin had no significant quality-reducing effects on the recyclate in the tested applications for injection moulding and blown films. Based on this assessment, the tested PA material can be rated as:

Recycling Compatible

under tested conditions for the application in PE-based flexible packaging

The recyclability of a packaging is dependent on the final packaging design for which this material will be used (including composition, size, colour, and others).

This certificate (No. 2776-2024-004286-R1) is valid until **31/07/2025** (1 year upon issue).

This certificate will lose validity in case of qualitative or quantitative changes of material properties or chemical structures and compositions.

Aachen, dated 17/07/2024 (revised 07/08/2024)

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. 2776-2024-004286).



CHI | cyclos-HTP Institute

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