



Self-declared environmental claims

Environmental impacts of expanded polypropylene

ARPRO, ARPRO Recycled and ARPRO 35 Ocean

Manufacturer: JSP International

JSP International is a global supplier of engineered plastic foams, sheet, and plank products. One of the products marketed by JSP International is ARPRO, an expanded polypropylene (EPP) foam bead used in automotive systems, packaging applications, and various consumer products.

This self-declared environmental claim is based on the life cycle assessment of the environmental impacts of expanded polypropylene ARPRO, ARPRO Recycled and ARPRO 35 Ocean. All the grades are produced by JSP International.

The assessment was performed using the LCA method conducted in accordance with ISO 14040. Environmental impacts were characterised using PEF 3.0 methodology of the European Union.

As a functional unit, the production of 1000 kg of expanded polypropylene was chosen.

Based on the LCA study conducted, the following environmental claims are declared:

- 1) The carbon footprint of ARPRO products expressed in different characterisation methods are as follows:

	ARPRO LCA report	ARPRO EPD report
Product type	CML2001 - Aug. 2016, Global Warming Potential (GWP 100 years) [kg CO ₂ eq.]	PCR 2010:16, version 3.01. Plastics in primary forms
ARPRO	2,13	2,17
ARPRO Recycled	1,95	1,99
ARPRO Ocean 35	1,99	2,04

The different test methods give marginally different results

- 2) The following processes account for the largest part of the carbon footprint and the overall environmental impact of ARPRO and ARPRO Recycled Production: **production of PP granulate**, **CO₂ used for expansion process**, and **thermal energy** generated from natural gas. Other individual processes are significantly less important. Packaging, transport, and waste management play a marginal role in the results of most of the impact categories.

The evaluation of ARPRO expanded polypropylene was based on LCA methodology using the recommended values from the database of European Platform for Life Cycle Assessment of European Commission.

The evaluation was made by Vladimír Kočí, PhD., MBA, LCA studio, Prague, Czech Republic.

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Self-declared environmental claims developed in accordance to
ISO 14021, EN ISO 14040, EN ISO 14044 and P CEN ISO/TS 14067