



## CFP VERIFICATION STATEMENT

ISO 14067:2018

CFP 0000003

THE FOLLOWING DOCUMENT:

**“Stena Recycling Report 14067, Rev.4 November 28<sup>th</sup>, 2023”**

PREPARED BY:

**STENA RECYCLING SRL**

VIA SANTA MARIA IN CAMPO 2 - CAVENAGO BRIANZA (MB)

FOR THE FOLLOWING PRODUCT:

**RECYCLED POLYMER GRANULATES AND FLAKES**

WITH REFERENCE TO THE FOLLOWING PRODUCTIVE SITE:

**STENA RECYCLING Srl, Via dell’Industria, 483/515, 27050 Angiari (VR)**

RELATED TO PERIOD:

**Year 2023 (January – September 2023)**

HAS BEEN VERIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF THE STANDARD:

**ISO 14067: 2018 - Greenhouse gases - Carbon footprint of products -  
Requirements and guidelines for quantification**

Annex 1 report:

- A brief description of the products subject of the CFP study
- A description of the system boundaries under study (with indication of the exclusions)
- The result of the quantification of the CFP of the products under study (in kg CO<sub>2</sub>eq/U.D.).

THIS STATEMENT IS NOT VALID WITHOUT THE RELATED ANNEX

Date of Issue: **13<sup>th</sup> December 2023**

*The President*  
*Cesare Puccioni*



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Membro degli Accordi di Mutuo riconoscimento EA, IAF e ILAC.  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements.

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<b>DESCRIPTION OF THE PRODUCTS</b>	<p>1 ton of RECYCLED POLYMER GRANULATES AND FLAKES: The polymers under evaluation are:</p> <ol style="list-style-type: none"> <li>1. Polypropylene and Polyethylene flake (PP/PE Flakes)</li> <li>2. Acrylonitrile butadiene styrene flakes (ABS Flakes)</li> <li>3. Polystyrene flakes (PS Flakes)</li> <li>4. Acrylonitrile butadiene styrene pellets (ABS Pellets)</li> <li>5. Polystyrene pellets (PS Pellets)</li> </ol>																																								
<b>SYSTEM BOUNDARIES</b>	<p>Partial CFP LCA from Cradle to gate. The following life cycle phases are included: <u>Upstream processes:</u> Collection of waste, Primary and secondary packaging production of waste received, All relevant transportation (transport of raw materials, and products at all stages) <u>Core processes:</u> Collection of waste, Primary and secondary packaging production to sell the products, Storage and handling of materials, Pre-treatments: sorting, cleaning, size reduction, Advanced treatments (cutting, shredding, sorting, floating cleaning, extrusion), Impacts due to the electricity production according to the proper energy mix hypotheses.</p>																																								
<b>UTILIZED PCR</b>	None																																								
<b>RESULT OF THE QUANTIFICATION OF THE CFP (in kg CO<sub>2</sub>eq/u.d.)</b>	<p align="center"><i>Results of ABS pellet and PS pellet for the two main phases: upstream and core</i></p> <table border="1" data-bbox="427 902 1442 1173"> <thead> <tr> <th><i>Impact category</i></th> <th><i>Total (kg CO<sub>2</sub>-eq/t)</i></th> <th><i>Upstream (kg CO<sub>2</sub>-eq/t)</i></th> <th><i>Core (kg CO<sub>2</sub>-eq/t)</i></th> </tr> </thead> <tbody> <tr> <td><i>GWP100 - fossil</i></td> <td align="right">651,82</td> <td align="right">150,84</td> <td align="right">500,99</td> </tr> <tr> <td><i>GWP100 - biogenic</i></td> <td align="right">0,82</td> <td align="right">0,09</td> <td align="right">0,73</td> </tr> <tr> <td><i>GWP100 - land transformation</i></td> <td align="right">0,06</td> <td align="right">0,01</td> <td align="right">0,05</td> </tr> <tr> <td><b><i>Total</i></b></td> <td align="right"><b>652,71</b></td> <td align="right"><b>150,94</b></td> <td align="right"><b>501,76</b></td> </tr> </tbody> </table> <p align="center"><i>Results of ABS and PS flakes for the two main phases: upstream and core</i></p> <table border="1" data-bbox="427 1294 1442 1576"> <thead> <tr> <th><i>Impact category</i></th> <th><i>Total (kg CO<sub>2</sub>-eq/t)</i></th> <th><i>Upstream (kg CO<sub>2</sub>-eq/t)</i></th> <th><i>Core (kg CO<sub>2</sub>-eq/t)</i></th> </tr> </thead> <tbody> <tr> <td><i>GWP100 - fossil</i></td> <td align="right">419,79</td> <td align="right">150,84</td> <td align="right">268,95</td> </tr> <tr> <td><i>GWP100 - biogenic</i></td> <td align="right">0,51</td> <td align="right">0,09</td> <td align="right">0,42</td> </tr> <tr> <td><i>GWP100 - land transformation</i></td> <td align="right">0,05</td> <td align="right">0,01</td> <td align="right">0,04</td> </tr> <tr> <td><b><i>Total</i></b></td> <td align="right"><b>420,35</b></td> <td align="right"><b>150,94</b></td> <td align="right"><b>269,41</b></td> </tr> </tbody> </table>	<i>Impact category</i>	<i>Total (kg CO<sub>2</sub>-eq/t)</i>	<i>Upstream (kg CO<sub>2</sub>-eq/t)</i>	<i>Core (kg CO<sub>2</sub>-eq/t)</i>	<i>GWP100 - fossil</i>	651,82	150,84	500,99	<i>GWP100 - biogenic</i>	0,82	0,09	0,73	<i>GWP100 - land transformation</i>	0,06	0,01	0,05	<b><i>Total</i></b>	<b>652,71</b>	<b>150,94</b>	<b>501,76</b>	<i>Impact category</i>	<i>Total (kg CO<sub>2</sub>-eq/t)</i>	<i>Upstream (kg CO<sub>2</sub>-eq/t)</i>	<i>Core (kg CO<sub>2</sub>-eq/t)</i>	<i>GWP100 - fossil</i>	419,79	150,84	268,95	<i>GWP100 - biogenic</i>	0,51	0,09	0,42	<i>GWP100 - land transformation</i>	0,05	0,01	0,04	<b><i>Total</i></b>	<b>420,35</b>	<b>150,94</b>	<b>269,41</b>
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<b>RESULT OF THE QUANTIFICATION OF THE CFP (in kg CO2eq/u.d.)</b>	<i>Results of PP/PE flakes for the two main phases: upstream and core</i>			
	<i>Impact category</i>	<i>Total (kg CO2-eq/t)</i>	<i>Upstream (kg CO2-eq/t)</i>	<i>Core (kg CO2-eq/t)</i>
	<i>GWP100 - fossil</i>	355,64	150,84	204,80
	<i>GWP100 - biogenic</i>	0,42	0,09	0,33
	<i>GWP100 - land transformation</i>	0,05	0,01	0,04
	<b>Total</b>	<b>356,11</b>	<b>150,94</b>	<b>205,17</b>
<b>EXCLUSIONS</b>	<p>In addition, the following aspects has been excluded from the study:</p> <ul style="list-style-type: none"> <li>• Manufacturing of production equipment, buildings, and other capital goods.</li> <li>• Maintenance of production equipment (such as lubricating oil and any other auxiliary materials).</li> <li>• Packaging of Plastic received from clients that are reused to ship and move other materials.</li> <li>• Rubbers and additive use in the extrusion process as considered irrelevant (few kg during the whole time period).</li> <li>• Materials used in the laboratory.</li> <li>• Travels to and from work by personnel.</li> </ul>			

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