



suncolor circular[®] 100

Sustainable protection – full functionality

Poredeep coloured EPS with only 11% of the ecological footprint from conventional material: this is circular[®] 100. Produced with recycled PS and the proven excellent characteristics of suncolor[®], circular[®] 100 is the sustainable and climate-friendly alternative for the fabrication of helmets with full functionality.



-87 %
FOSSIL
ENERGY



- 87 %
GLOBAL WARMING
POTENTIAL

* Percentage of recycled material in relation to total mass is 89 %.

Source: Institute for Industrial Ecology, 2023

Compared with standard EPS:

Conserves resources: Producing circular[®] 100 requires 87 % less cumulative fossil energy*, equivalent to 78.4 gigajoules per tonne produced or 21.8 kilowatt hours per kilogram.

Climate-friendly: The global warming potential** producing circular[®] 100 is 87 % lower. Each tonne produced saves 2.7 tonnes of CO₂ equivalents.

* ADP/foss: Abiotic Depletion Potential

** GWP: Global Warming Potential, calculated over 100 years



100 % recycle.
100 % function.

suncolor circolor® 100

The new recycled material for helmets

With a share of 100% recycled polystyrene, circolor®100 combines the excellent product properties of suncolor® with the growing demands for a circular economy.

- > Full functionality for innovative helmet production
- > 100% recycled PS from Europe
- > flustix® RECYCLED certification
- > sunpor's production exclusively relies on green electricity, steam from biomass and photovoltaics.



Environmental balance per ton circolor®100 EF 3.1 (via Ecoinvent)			
Category	Unit	Total	Reduction
GWP	kg CO ² -Eq	422.88	87%
AP/AE	mol H ⁺ -Eq	1.39	89%
ODP	kg CFC-11-Eq	6.69 * 10 ⁻⁶	88%
POCP	kg NMVOCeq	1.61	87%
HTP/PM	Diseas.Incid.	3.05 * 10 ⁻⁵	80%
HTP/nonC	CTUh	2.44 * 10 ⁻⁶	82%
FAETP	CTUe	2,035.06	66%
EP/FW	kg P-Eq	2.21 * 10 ⁻²	96%
EP/Mar	kg N-Eq	0.29	87%
GWP100/bio	kg CO ² -Eq	0.76	76%
GWP100/foss	kg CO ² -Eq	422	87%
GWP100/LUC	kg CO ² -Eq	0.13	78%
FAETP/EcoFW inorg	CTUe	1,943.54	66%
FAETP/EcoFW org	CTUe	91.52	70%
ADP/foss	MJ, net calorific value	11,426.43	87%
EP/terr	mol N-Eq	3.01	87%
HTP/C	CTUh	1.16 * 10 ⁻⁷	98%
HTP/C inorg	CTUh	6.08 * 10 ⁻⁸	86%
HTP/C org	CTUh	5.52 * 10 ⁻⁸	99%
HTP/nonC inorg	CTUh	2.21 * 10 ⁻⁶	81%
HTP/nonC org	CTUh	2.24 * 10 ⁻⁷	86%
IRP	kBq U235-Eq	15.47	77%
LU	dimensionless	4,306.22	28%
ADP/elements	kg Sb-Eq	732 * 10 ⁻⁴	91%
WU	m ³ world eq. deprived	100.98	93%

Technical Data



„post industrial“ recycled PS	Flame retardant	Typical size of granulate	Recommended density range	Pentane content	Water content
100 % by wt.	no	0.6 - 1.2 mm	40 - 120 kg/m ³	> 4.0 % by wt.	< 0.3 % by wt.

sunpor products are 100 % recyclable.



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