
ENGI-
NEERING
LIFE
elastron

elastron

What Causes Global Warming?

One of the most important issues at twenty-first century is climate change

Temperatures on Earth are liveable because of a natural process called the greenhouse effect. When the sun's radiation reaches our atmosphere, some is reflected back into space, while some passes through and is absorbed by the Earth.

This causes the surface of the Earth to warm up. The heat from the Earth is radiated outward and absorbed by gases present in the Earth's atmosphere.

Carbon Dioxide is the gas most responsible for warming due to its abundance. Other greenhouse gases include CH_4, N_2O, HFC, PFC and SF_2 .

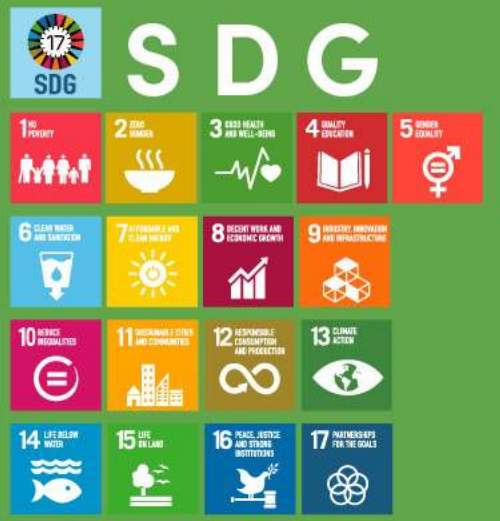
elastron

Climate Change and Sustainability

The link between climate change and sustainable development

The Sustainable Development Goals(SDG) are an assembly of 17 interrelated global goals set up in 2015 by the United Nations General Assembly which are envisioned to be realized by 2030.

This goals aim to strengthen resilience and adaptive capacity to climate change related disasters; integrate climate change measures into policies and planning; build public knowledge and awareness of climate change and its impacts.



elastron

Sustainability

Sustainability is based on three dimensions:

Economic Sustainability

- Responsible Resource Management
- Long-Term Financial Stability
- Socially Responsible Business Practices

Environmental Sustainability

- Conservation and Biodiversity
- Climate Change Mitigation
- Sustainable Consumption and Production

Social Sustainability

- Social Equity
- Cultural Diversity and Inclusion
- Health and Well-being

elastron

Sustainability

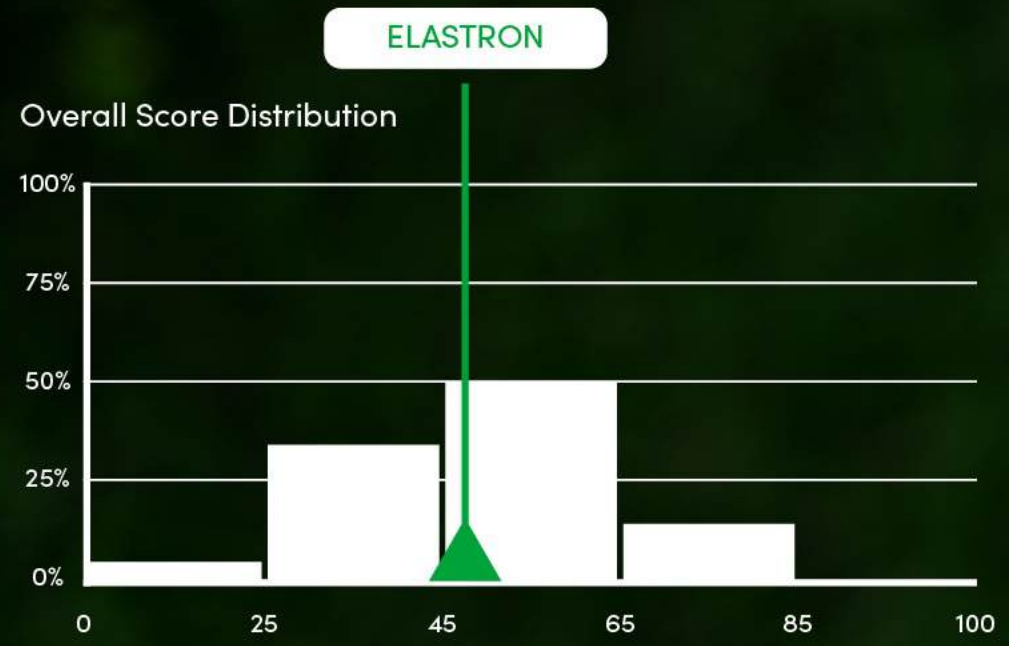
Sustainability Approach at Elastron

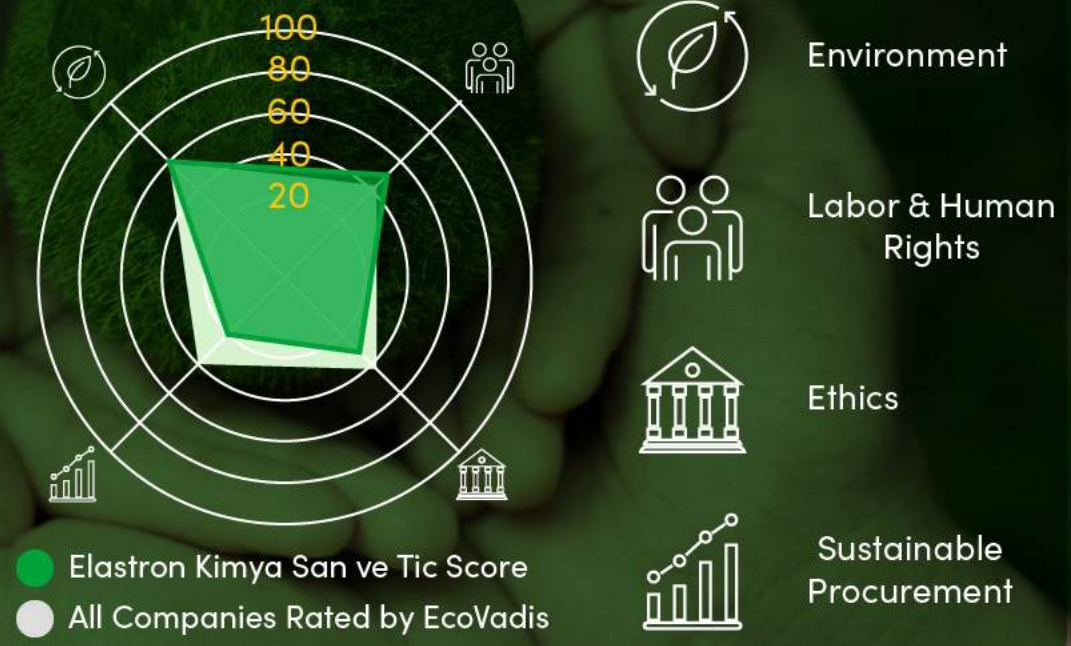
- Reducing Waste Quantity
- Reducing Carbon Footprint
- Using Recycled Polymers
  - PCR (Post Consumer Recycled)
  - PIR (Post Industrial Recycled)
- Saving Natural Sources
- Saving Energy

elastron

EcoVadis Score Card

Elastron CSR management system assessed by EcoVadis





elastron

Elastron Product Coding System

C.G100.A65.B.2

C.	G	10	0	.A65	.B	.2
Circular	**Product** G- Elastron G V- Elastron V D- Elastron D	**Product Group** 10- Standard 20- High Temp 25- Weatherseal 30- Semifilled 40- Unfilled 51- Bondable 86- Special 90- Tailor Made	**Process Method** 0- Injection 1- Extrusion 3- Injection High Flow	**Hardness** Shore A Shore D	**Color** B- Black N- Natural	**Recycled Ratio** %0 - 9 1- %10 - 19 2- %20 - 29 3- %30 - 39 4- %40 - 49

elastron

Recycled TPV Compounds

Product Code	Type	Recycled Content %	Recycled Type	Hardness Shore ASTM D2240	Density g/cm^3 ASTM D792	Tensile Strength Mpa ASTM D412	Elongation at Break % ASTM D412
C.V860.A75.N.3	TPV	32	PIR/PCR	75A	0,95	6,50	550
C.V101.A90.B.2	TPV	25	PIR/PCR	90A	0,97	10,00	550
C.V101.A80.B.2	TPV	20	PIR/PCR	80A	0,97	7,00	600
C.V251.A75.B.2	TPV	20	PIR	75A	0,96	8,00	600
C.V101.A75.B.1	TPV	15	PIR/PCR	75A	0,96	7,00	600
C.V510.A65.B.EM.1	TPV	15	PIR/PCR	65A	0,90	7,00	850
C.V251.A67.B.1	TPV	15	PIR	67A	0,99	5,50	550
C.V100.A60.701	TPV	9	PIR/PCR	60A	0,96	5,00	600
C.V401.A55.B	TPV	2	PIR/PCR	55A	0,92	4,50	550

elastron

Recycled SEBS Compounds

Product Code	Type	Recycled Content %	Recycled Type	Hardness Shore ASTM D2240	Density g/cm^3 ASTM D792	Tensile Strength Mpa ASTM D412	Elongation at Break % ASTM D412
C.G100.A65.B.4	SEBS	45	PIR/PCR	65A	1,17	5,50	850
C.G100.A55.B.4	SEBS	45	PIR/PCR	55A	1,10	6,00	900
C.G261.A75.B.4	SEBS	40	PIR	75A	1,10	6,00	450
C.G261.A70.B.3	SEBS	38	PIR	70A	1,10	5,50	600
C.G150.A65.B.3	SEBS	38	PIR	65A	1,17	7,00	800
C.G441.D40.B.3	SEBS	30	PIR/PCR	40D	0,91	16,50	700
C.G260.A65.B.3	SEBS	30	PIR	65A	1,00	5,50	600
C.G303.A75.B.3	SEBS	30	PIR/PCR	75A	1,06	6,50	700

elastron

Recycled SEBS Compounds

Product Code	Type	Recycled Content %	Recycled Type	Hardness Shore ASTM D2240	Density g/cm^3 ASTM D792	Tensile Strength Mpa ASTM D412	Elongation at Break % ASTM D412
C.G903.A70.B.2	SEBS	26	PIR/PCR	70A	0,97	7,00	700
C.G100.A90.N.2	SEBS	24	PIR/PCR	90A	1,17	8,50	600
C.G301.A45.B.C.2	SEBS	20	PIR/PCR	45A	0,98	8,00	1000
C.G250.A65.B.1	SEBS	18	PIR	65A	0,94	7,00	950
C.G100.A75.N.1	SEBS	15	PIR/PCR	75A	1,17	7,50	750
C.G260.A65.B.1	SEBS	15	PIR	65A	1,00	5,00	600
C.G100.A65.N.1	SEBS	11	PIR/PCR	65A	1,17	6,00	800

elastron

Recycled SEBS Compounds

Product Code	Type	Recycled Content %	Recycled Type	Hardness Shore ASTM D2240	Density g/cm^3 ASTM D792	Tensile Strength Mpa ASTM D412	Elongation at Break % ASTM D412
C.G100.A60.N.1	SEBS	10	PIR/PCR	60A	1,17	5,00	800
C.G100.A55.B.1	SEBS	10	PIR/PCR	55A	1,16	4,50	750
C.G303.A70.701	SEBS	9	PIR/PCR	70A	1,06	3,00	350
C.G303.A45.B.C	SEBS	7	PIR/PCR	45A	0,98	8,50	900

elastron

Recycled SBS Compounds

Product Code	Type	Recycled Content %	Recycled Type	Hardness Shore ASTM D2240	Density g/cm^3 ASTM D792	Tensile Strength Mpa ASTM D412	Elongation at Break % ASTM D412
C.D101.A87.B.4	SBS	40	PIR/PCR	87A	1,12	6,50	500
D101.A87.B.P	SBS	21	PIR/PCR	87A	1,12	6,50	500

elastron

Life Cycle Assessment

A life cycle Product Carbon Footprint measures the total greenhouse gas emissions generated by a product, from extraction of raw materials, to end-of-life. It is measured in carbon dioxide equivalents (CO_2eq). The most widely accepted methodology: ISO 14044.

Alternative boundaries for calculation is below. Elastron uses cradle to gate boundaries.

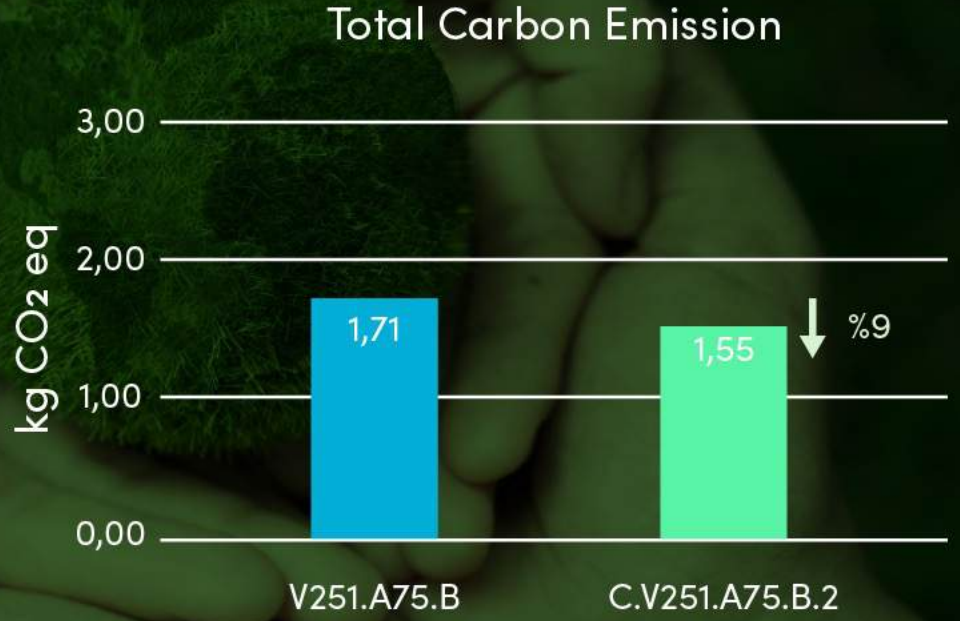
- Cradle to Gate, raw materials to finished goods (no end life considerations)
- Cradle to Grave, considers everything from harvesting materials to the disposal of the finished goods
- Gate to Gate, considers everything from receiving to shipping gate

elastron

Life Cycle Assessment

Comparison of TPV-Based A75 Products

	V251.A75.B	C.V251.A75.B.2
Recycled Content, %	0	20
Hardness, Shore A	75	75
Density, g/cm^3	0,96	0,96
Tensile Strength, Mpa	8	8
Elongation, %	600	600
%100 Modulus, Mpa	3,20	3
%300 Modulus, Mpa	4,70	4,50

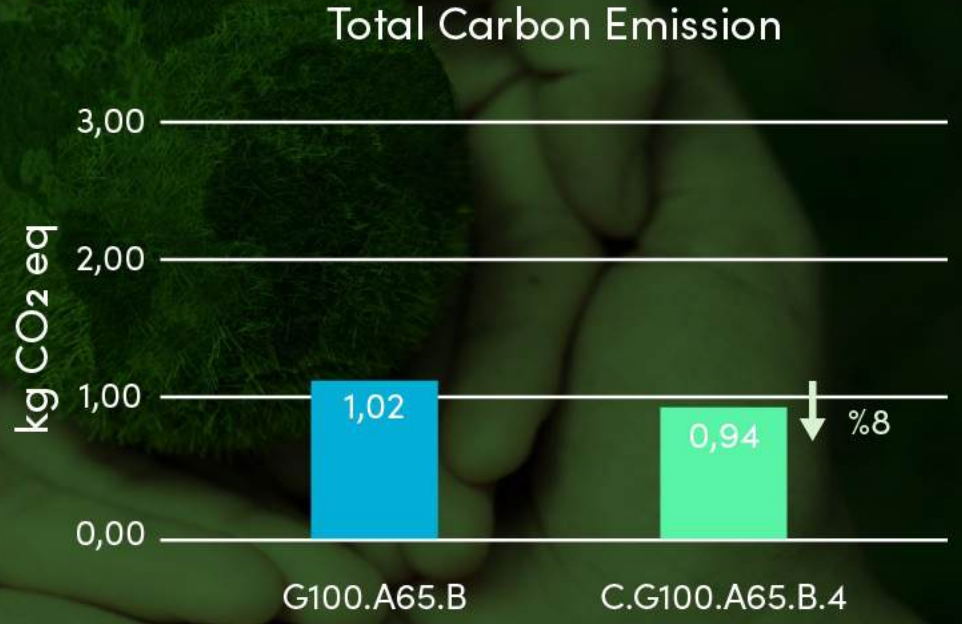


elastron

Life Cycle Assessment

Comparison of SEBS-Based A65 Products

	G100.A65.B	C.G100.A65.B.4
Recycled Content, %	0	45
Hardness, Shore A	65	65
Density, g/cm^3	1,17	1,17
Tensile Strength, Mpa	7,00	5,50
Elongation, %	750	850
%100 Modulus, Mpa	2,00	1,50
%300 Modulus, Mpa	3,40	2,40

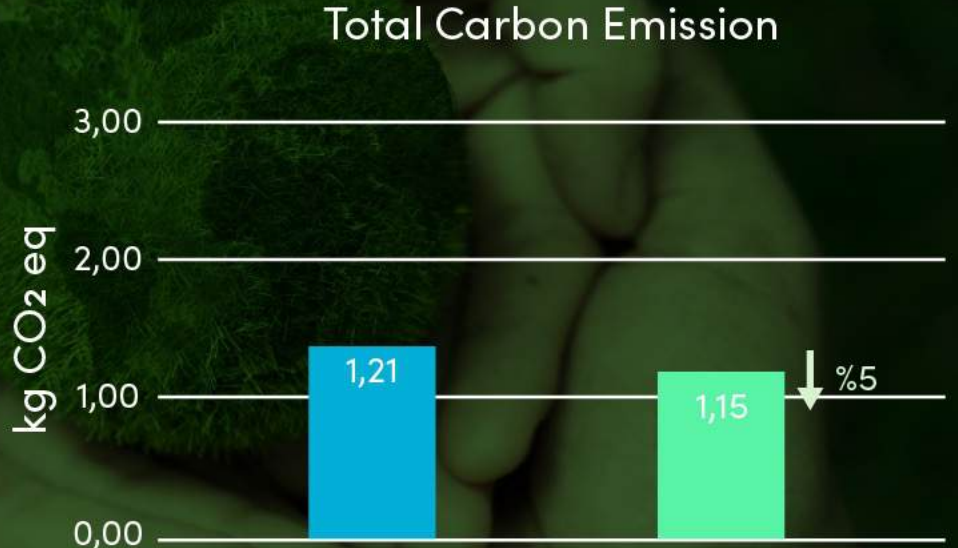


elastron

Life Cycle Assessment

Comparison of Crosslinked SBC-Based A70 Products

	G261.A70.B.353	C.G261.A70.B.3
Recycled Content, %	0	38
Hardness, Shore A	70	70
Density, g/cm^3	1,10	1,10
Tensile Strength, Mpa	7	5,50
Elongation, %	500	600
%100 Modulus, Mpa	2,20	2,10
%300 Modulus, Mpa	4,20	3,90

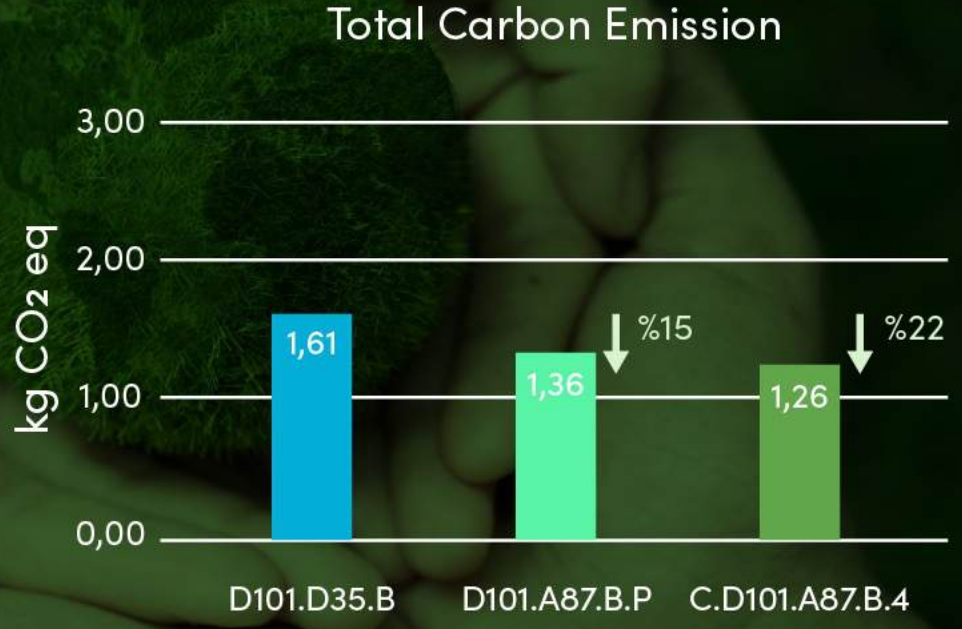


elastron

Life Cycle Assessment

Comparison of SBS-Based A87 Products

	D101.D35.B	D101.A87.B.P	C.D101.A87.B.4
Recycled Content, %	0	22	40
Hardness, Shore	35D	87A	87A
Density, g/cm^3	1,13	1,12	1,12
Tensile Strength, Mpa	7	6,50	6,50
Elongation, %	500	500	500
%100 Modulus, Mpa	5,30	5,10	5,10
%300 Modulus, Mpa	6,50	6,10	6,10

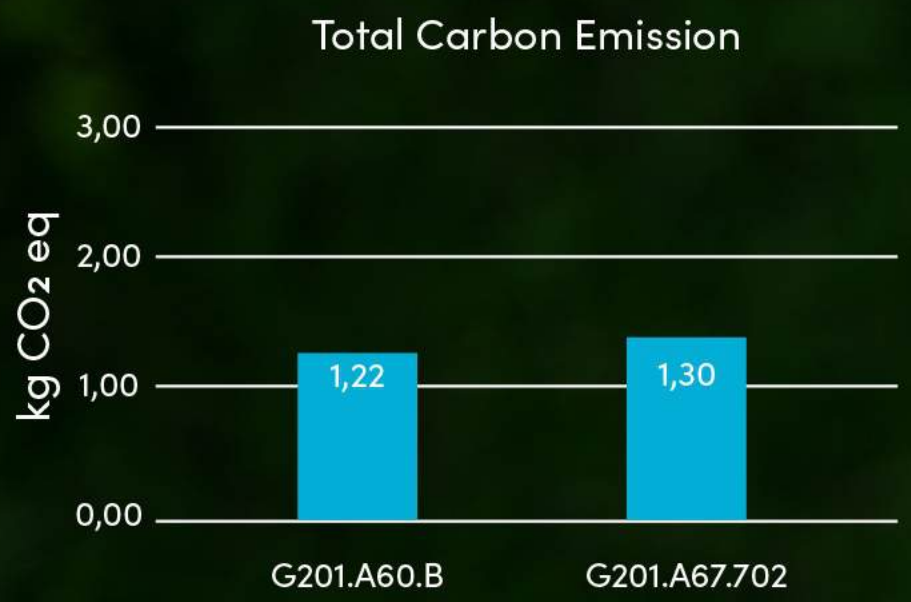


elastron

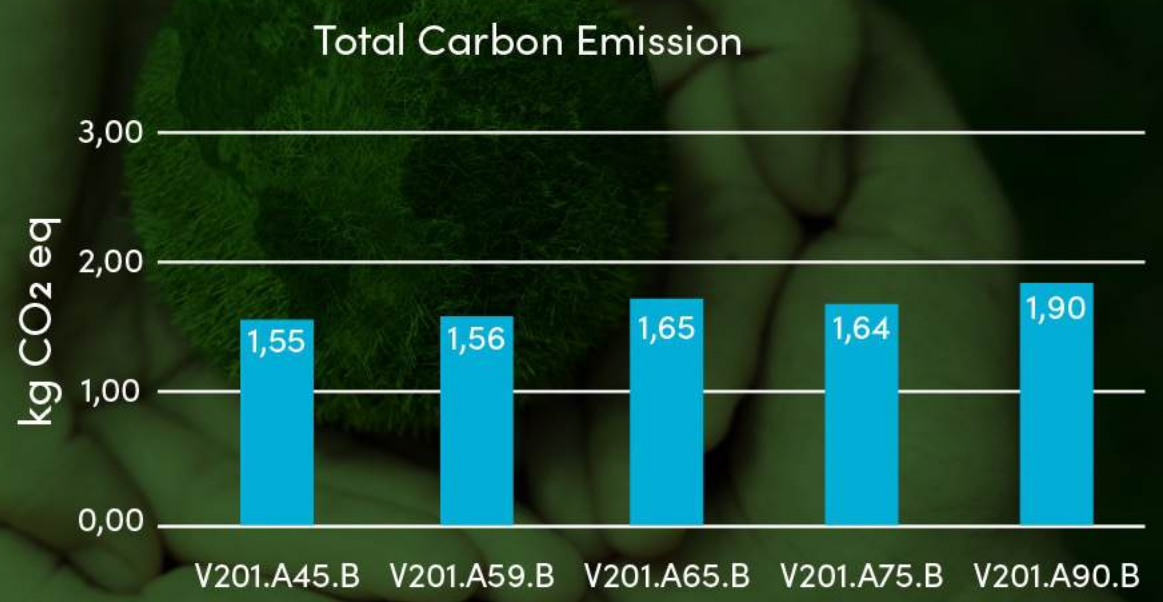
Life Cycle Assessment

LCA Analysis Examples

G201 Products



V201 Products



www.elastron.com