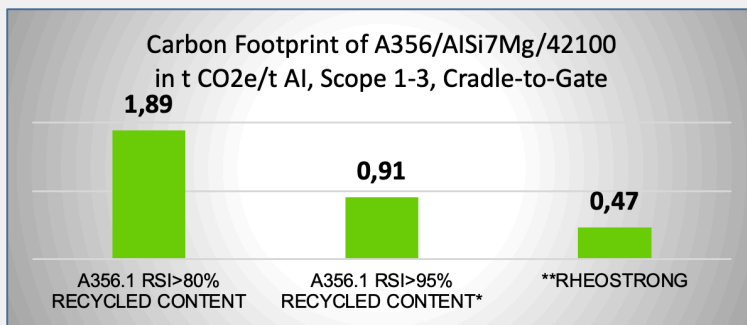


CO₂ saving by secondary alloy

Component – Compressor

RHEOSTRONG	ST	TENSILE STRENGTH RM	YIELD STRENGTH RP0,2	ELONGATION
	F	200 MPa	95 MPa	5,0-11 %
	T5	200 MPa	125 MPa	7 %
	T6	270 MPa	195 MPa	8 %



*Life Cycle Assessment Report of the Aluminum Association

**Stena Aluminium

Why Rheocasting for Compressor

Compressor with laminar filling results in a reduce level of porosity. With Rheocasting it is also possible to use other alloys that are secondary that show interesting properties that can satisfy the expected levels. With Rheocasting temperature are lowered which give increased die life.

In the table below a comparison has been made between different alloys. Some key players in Automotive says that 1 kg of CO₂ = 0,1 EUR which gives below savings. The calculation is based on a compressor of 2,8 kg with an annual volume of 1 000 000 sets.

Type of alloy	CO ₂ kg/kg Al	CO ₂ impact	Saving compared with Stena (kg)	Saving in EUR
Secondary RSI 80%	1,9 CO ₂ kg/kg Al	5 346 600	4 952 640	495 264
Secondary RSI 95%	0,9 CO ₂ kg/kg Al	2 532 600	2 138 640	213 864
Stena Rheostrong	0,47 CO ₂ kg/kg Al	1 322 580		

Conclusion: If the value of CO₂ is true there are huge savings to be made by changing HPDC into Rheo for these compressors.

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