REPORT

Issued by an Accredited Testing Laboratory

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Date	Reference	Page
2022-02-11	O100152-1102252	1 (2)

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Analysis of steel

(1 appendix)

Products

One sample submitted by the client.

Sample marking:	ST650 Powder steel
Date of arrival at RISE CPS:	2022-01-10
Date of testing:	Week 2 - 6, 2022

Assignment

Determination of C, Al, Si, P, S, Ti, V, Cr, Mn, Co, Ni, Cu, Zr, Nb, Mo, Sb, Ta and W.

Methods

Carbon was determined on filings according to SP0653. All other elements were analysed on a remelted sample with X-ray fluorescence, method SP1494.

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Accred. No. 1002
Testing
ISO/IEC 17025

Results

Elements	ST650 Powder steel
Carbon, C, weight-%	1.35
Aluminium, Al, weight-%	<0.1
Silicon, Si, weight-%	0.40
Phosphorus, P, weight-%	0.029
Sulfur, S, weight-%	<0.01
Titanium, Ti, weight-%	<0.01
Vanadium, V, weight-%	3.1*
Chromium, Cr, weight-%	13.1
Manganese, Mn, weight-%	0.39
Cobalt, Co, weight-%	0.12
Nickel, Ni, weight-%	0.099
Copper, Cu, weight-%	0.029
Zirkonium, Zr, weight-%	<0.01
Niobium, Nb, weight-%	0.47
Molybdenum, Mo, weight-%	2.0
Antimony, Sb, weight-%	<0.01
Tantalum, Ta, weight-%	<0.01
Tungsten, W, weight-%	1.0

The results refer only to the tested object.

*Outside accredited measuring range.

RISE Research Institutes of Sweden AB
Chemistry and Applied Mechanics - Chemical Product Safety

Performed by

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Appendix: Measurement uncertainty