[MKS PAMP SA]

A. ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar B. ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar

Qualifying Explanatory Statement

in support of the

Achievement of and Ongoing Commitment to Carbon Neutrality

Application Period: 1st July 2022 – 30th June 2023

Date: 26/07/2022

1. Executive Summary

This document is the Qualifying Explanatory Statement (QES) which provides collected evidence in support of the declaration that MKS PAMP SA:

- has achieved carbon neutrality for its A. ZAUCB00211 999.9 Gold Carbon Neutral Kilobar and B. ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar marketed Globally for the period commencing July 2022 to June 2023 (see Section 3); and
- is committed to maintaining carbon neutrality for its A. ZAUCB00211 999.9 Gold Carbon Neutral Kilobar and B. ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar (see section 4).

The carbon neutrality declaration has been made and the collected supporting evidence has been provided in accordance with the requirements prescribed by PAS 2060:2014 – Specification for the demonstration of carbon neutrality.

in the second se Signature: Marwan Shakarchi CEO 06/07/2022

2. General information

PAS 2060 Requirement	Information Relating to the Carbon Neutral Declaration	
Entity making PAS 2060 declaration:	MKS PAMP SA	
Subject of PAS 2060 declaration:	 A. ZAUCB00211 - 999.9 Gold Carbon Neutral Kilobar B. ZAULB00117 - 999.9 Gold Carbon Neutral Large Cast Bar Emissions included: Raw materials Inbound transportation Manufacturing Downstream Distribution End of Life 	
Description of Subject:	A. Cast bullion bar made out of 1 kg of fine gold (999.9 purity).B. Cast bullion bar made out of 12.5 kg of fine gold (999.9 purity).	
Rationale for selection of the subject:	A. Out of our cast products range this product has consistently the highest number of pieces produced, which accounts for a significant amount of MKS PAMP operational emissions.	

	B. This cast bar is in the same product family, a staple in our gold bar sales.
Control approach:	Cradle-to-Grave
Type of conformity assessment:	Independent third-party certification (see Appendix 2)
Baseline date for PAS 2060 programme:	1 st July 2022
Individuals responsible for evaluation and provision of data necessary for declaration:	Giovanni Calabria – ESG Manager Filip Popescu – ESG Officer Marco Villari – ESG Officer

3. Declaration of achievement of carbon neutrality

PAS 2060 Requirement	Information Relating to the Carbon Neutral Declaration
Declaration of achievement:	Carbon neutrality of A. ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar and B. ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar achieved by MKS PAMP SA in accordance with PAS 2060 at June 2022 for the period commencing 1 st July 2022, certified by the Carbon Trust.
Recorded carbon footprint of the subject during the period stated above	2,731.24 kilogrammes CO2e per kilogram of gold 54,624.73 t CO ₂ e based on forecast sales of 20,000 kilograms total (A) + (B).
Carbon offsets purchased	54,625 (tCO2e) See section 3.3 for further details.

3.1. Carbon footprint methodology

PAS 2060 Requirement	Information Relating to the Carbon Neutral Declaration
Description of the standard and methodology used to determine GHG emissions and reductions	The methodology for calculating the carbon footprint was as follows: The footprint was calculated by the Carbon Trust, using primary data provided by MKS PAMP for operations from 1 st January 2020 to 31 st

	December 2020. The annual footprint was divided by the mass of gold bar output to yield a kgCO ₂ e footprint per kg.
	The estimated total footprint of the subject of neutrality was calculated based on estimated sales volume and will be finalised in a Reconciliation process in the next Certification, once actual sales data is available.
	MKS PAMP produce many products at their facility in addition to the gold bars. Therefore, MKS PAMP allocated raw material inputs, outputs, and utility usage for each process step based on the mass output of all products manufactured at their factory.
	Inbound and outbound transportation distances and modes were provided by MKS PAMP, and end-of life emissions were calculated using secondary data and assumptions.
	Activity data was multiplied by emission factors to calculate emissions. For the virgin gold supply, MKS PAMP provided the Carbon Trust with supplier-specific emission factors based on reported figures and calculations. Since MKS PAMP also use recycled gold as an input, the virgin gold emission factor was inputted into the EU Product Environmental Footprint Circular Footprint Formula to yield the overall emission factor that was applied to the gold input. Other emission factors were sourced from Government publications (i.e. BEIS), Ecoinvent v3.7.1., and published literature.
	This methodology was developed to be in accordance with the requirements of ISO 14067.
	The provisions of the methodology for calculating the carbon footprint were applied as detailed and the principles set out in PAS 2060 were met.
	ISO 14067 is an internationally recognised specification for outlining the principles, requirements, and guidelines for the quantification and reporting of a product carbon footprint. The provisions of the methodology for calculating the carbon footprint were applied as detailed and the principles set out in PAS 2060 were met.
Justification for the selection of the	The following assumptions were made in quantifying GHG emissions:
methodologies chosen	 The virgin emission factor for gold was provided by PAMP for the top 78% of suppliers on a mass basis; the weighted average EF was applied to all virgin inputs. Potassium fluoroborate EF was not reported in Ecoinvent 3.7.1 so the EE for each interference of the term.
	 The EF for sodium fluoroborate was used instead. Certain EFs for chemicals were not available, proxies were used, for example trimercaptotriazine.

-	Black water and white water are outputs provided by PAMP. It is assumed that water consumption is the sum of these two. In the absence of specific information, it is assumed that raw materials used in packaging are virgin materials. Since packaging makes up a small proportion of the total footprint, this has a negligible impact. It is assumed that there is a 100% recycling rate of the gold bar at the end of its life.
-	Assumed that packaging materials are virgin.
-	Road freight, vehicle type and fuel unknown, assigned Rigid lorry 3.5 to 7.5 tonne 2 axle UK and diesel emissions by volume EU.
-	Single footprint was calculated for all markets as downstream distribution makes up less than 0.1% of total product carbon footprint, therefore variation across markets will have immaterial impact.
-	For packaging end-of-life, an EU average was used due to the absence of global factors.

3.2. Carbon footprint breakdown

Carbon Footprint (for latest footprinting year)	Information Relating to the Carbon Neutral Declaration
Total Carbon Footprint	 54,624.73 t CO₂e based on <u>forecast</u> sales of 20,000 kilograms total (A) + (B). Actual sales will be reviewed during reconciliation at the end of the certification period and the footprint, and number off offsets required, will be adjusted.

Table 1. Product footprint emissions broken down by product per functional unit

Region	SKU	Emissions	Units
Global	ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar	2,731.24	kgCO2e / kg
Global	ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar	2,731.24	kgCO2e / kg

3.2.1. Data methods

Data sources

- Ecolnvent 3.7.1;
- BEIS 2020;

Suppliers' primary data were sourced to support lifecycle stages such as:

- Raw Materials quantity and type
- Transport mode and distance
- Downstream distribution mode and distance
- Utilities: water and energy.
- Virgin gold emission factor

Secondary data were sourced to support lifecycle stages such as:

- Emission Factors for raw materials and transport
- End of Life calculations
- Waste treatments emission factors

Table 2. List of country of sales



Table 2. Description of GHG emissions

Life cycle stage	Description	GHG Emissions Category	Excluded emissions & Justification
Raw Materials	Gold, other inputs and packaging	Scope 3 – Category 1	
Inbound transport	Transport of raw materials from supplier to MKS PAMP	Scope 3 – Category 4	Inbound packaging of gold was excluded due to immateriality
Manufacturing	Fuels (Gas, Propane), Electricity, and waste	Scope 1, Scope 2, Scope 3 – Category 5	
Downstream Distribution	Transport of Gold Bars from MKS PAMP to global markets	Scope 3 – Category 9	
Use Phase			Not Applicable, no energy associated with use
End of life	Disposal of Gold and Packaging	Scope 3 – Category 12	

3.3. Carbon offsets

PAS 2060 Requirement	Information Relating to the Carbon Neutral Declaration	
Offset methodology	Carbon Credits amounting to a total of 54,625 tonnes of CO2e are being purchased from the CDM and VCS programs, offsetting for Scope 1, 2, and 3 of the emissions from the fabrication of products A and B. See Appendix 1 for methodology details.	
Offset Confirmation	 The offsets generated represent genuine, additional GHG emission reductions elsewhere. Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting. Carbon offsets are verified by an independent third-party verifier. The credits from the selected carbon offset projects are: only issued after the emission reduction has taken place. retired within 6 months from the date of the declaration of achievement. supported by publicly available project documentation on a registry which provides information about the offset project, quantification methodology and validation and verification procedures. stored and retired in an independent and credible registry. 	
Offsets	Full details of the carbon offsets included in making this declaration are provided in Appendix 1.	

4. Declaration of ongoing commitment to carbon neutrality

PAS 2060 Requirement	Information Relating to the Carbon Neutral Declaration
Declaration of on-going	MKS PAMP SA commits to maintain carbon neutrality for ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar and ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar in accordance to PAS 2060 for the period July 2022 – June 2023.
commitment:	Carbon neutrality for ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar and ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar for the period July 2023 – June 2024 will be achieved by June 2024.

4.1. Carbon management plan

PAS 2060 Requirement	Information Relating to the Carbon Neutral Declaration	
Targets for GHG reduction for the defined subject appropriate to the timescale for achieving carbon neutrality	For the period July 2022 - June 2023 (short-term) MKS PAMP aims to reduce the current estimated GHG emissions of both products (A) ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar and (B) ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar by 1.2%, translating into 32.8 kg CO2e reduced emissions per kg of gold. Year-to-year, this will translate into a reduction of 3.6% (98.3 kg CO2e/kg gold) by 2025 (mid-term goal), and 9.6% (262.2 kg CO2e/kg gold) by 2030 (long-term goal).	
	We are not foreseeing significant challenges in achieving these reductions, as most of our upstream parties have emission reduction targets themselves. MKS PAMP will collaborate with its partners in their respective environmental impact reduction journey and support those who have set GHG emission reduction goals.	
	Moreover, our SBTi commitments will see our Scope 1 emissions reduced by 46.2% and Scope 3 by 27.5% by 2030, both goals bringing additional reductions to our Carbon Neutrality plan for the 1kg and 12.5 kg gold bars.	
Planned means of achieving and maintaining GHG emissions reduction	 Analyse material composition (short-term focus) MKS PAMP commits to making conscientious choices in the composition of the material mix (mined vs recycled) used to produce the bars with the goal of maximising recycled material to mitigate the environmental impact. Incorporate carbon reduction requirement in our on-boarding of clients (short-term focus) MKS PAMP requires clients to disclose the company's desire to reduce their carbon emission, ambitions, and action plans. Clients 	

	will be reviewed and on-boarded based on their commitment to
	engage in GHG reductions targets and their capacity to act.
	3. Acquire yearly carbon emission data from our mining sources (mid-term focus) This allows us to monitor our sources' progress towards their reduction plans, and alignment with our ambitions. This information is crucial to our strategic sourcing decisions which also apply to the scope of this Carbon Neutrality Qualifying Explanatory Statement.
	4. Engage with our material suppliers (long-term focus) Frequent meetings with our suppliers to share our ambitions, engage with them on potential points of reductions, discuss pathways to improve, and support their efforts to reduce.
	MKS PAMP's different teams (compliance, on-boarding, sales, ESG, etc.) maintain regular communication with mines. We approach our suppliers through one-on-one meetings, site visits, and meetings for regulatory controls (i.e., compliance processes). We aim to set quarterly meetings with mines to share our ambitions, potential points of reduction and discuss pathways to improve and support their efforts to reduce.
	For a count of 20 tonnes total production of ZAUCB00211 – 999.9 Gold Carbon Neutral Kilobar and ZAULB00117 – 999.9 Gold Carbon Neutral Large Cast Bar we are estimating 54,625 tCO2e necessary to be offset.
The offset strategy to be adopted	This estimate is based on forecasted sales. There will be a reconciliation at the end of the certification period to ensure that the correct number of credits are purchased to offset the emissions of the actual volume sold during the certification period.
	See appendix 1 for the nature of the offsets and number of credits.

Appendix of qualifying explanatory statement

Appendix 1: Offsets

Project name	Country	Project type	Stan dard	Type of Credit	Total credits	Generation period	Retirement date	Reference No. & link to registry	Offset volume (tCO ₂ e)
VTRM Renewable Energy 2	Brazil	Energy industries (renewable/non- renewable sources)	VCS	Wind	10,000	2019-2020	July 5 th 2022	https://registry.verra.org/ Reference: 1903	10,000
SOUBRE HYDROPOWER PROJECT	lvory Coast	Energy industries (renewable/non- renewable sources	VCS	Hydro	10,900	2019 & 2021	July 5 th 2022	https://registry.verra.org/ Reference: 1522	10,900
SOUBRE HYDROPOWER PROJECT	lvory Coast	Energy industries (renewable/non- renewable sources	VCS	Hydro	7,100	2019 & 2021	July 5 th 2022	https://registry.verra.org/ Reference: 1522	7,100
SOLAR PHOTOVOLTAIC PROJECT BY GIRIRAJ RENEWABLES PRIVATE LIMITED	India	Energy industries (renewable/non- renewable sources	VCS	Solar	26,625	2019-2020	July 5 th 2022	https://registry.verra.org/ Reference: 1786	26,625
							Total tonnes (tCO ₂ e) offset	54,625

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9729- 128001810- 12810434- 1/04/2019 31/12/2019 VCS-VCU-997- VER-IN-1-1786- 0104/2019- Project by (renewable/non- VER-IN-1-1786- VER-I	son Date of Retiremen	Retirement Reason Details	Beneficial Owner	Retirement Reason	Account Holder	Project Country	Project Site State/Province	Origination Program	Additional Issuance Certifications	Project Type	Project Name	Project ID	Unit Type	Quantity of Units	Serial Number	To Vintage	From Vintage
31122019-0 the Carbon Trus	MP r 05/07/2022 by	These offsets are being retired on behalf of MKS PAMP SA as part of their requirements for Carbon Neutrality certification given by the Carbon Trust.	MKS PAMP SA	Retirement for Person or Organization	PACT Capital AG	India (IN)	Karnataka, Uttar Pradesh, Maharashtra			Energy industries (renewable/non- renewable sources)	Solar Photovoltaic Project by Giriraj Renewables Private Limited	1786	VCU	26625	9729- 128091810- 128118434- VCS-VCU-997- VER-IN-1-1786- 01042019- 31122019-0	31/12/2019	01/04/2019
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From Vintage	To Vintage	Serial Number	Quantity of Units	Unit Type	Project ID	Project Name	Project Type	Additional Issuance Certifications	Origination Program	Project Site State/Province	Project Country	Account Holder	Retirement Reason	Beneficial Owner	Retirement Reason Details	Date of Retireme
1/01/2021	30/06/2021	12389- 408761291- 408772190- VCS-VCU-291- VER-CI-1-1522- 01012021- 30062021-0	10900	VCU	1522	Soubre Hydropower Project	Energy industries (renewable/non- renewable sources)			San Pedro Province	Cote D'Ivoire (CI)	Concord Resources Limited	Retirement for Person or Organization	MKS PAMP SA	These offsets are being retired on behalf of MKS PAMP SA as part of their requirements for Carbon Neutrality certification given by the Carbon Trust	05/07/202
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	Project ID Project Name Primary Project Type Additional Project Type(s) Project Site State/Province Project Site Country Project VVB Crediting Period Start Date Crediting Period End Date Project Document	1522 Soubre Hydropower Project Energy Industries (renewable/non-renewable sources) NA San Pedro Province Cote Dhoire (CI) Tuev Nord Cert GmbH (Tuev Nord) 25/05/2017 24/05/2027 View	
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From Vintage	To Vintage	Serial Number	Quantity of Units	Unit Type	Project ID	Project Name	Project Type	Additional Issuance Certifications	Origination Program	Project Site State/Province	Project Country	Account Holder	Retirement Reason	Beneficial Owner	Retirement Reason Details	Date of Retireme
1/03/2019	30/09/2020	11090- 279847352- 279857351-VCS- VCU-1491-VER- BR-1-1903- 01032019- 30092020-0	10000	VCU	1903	VTRM Renewable Energy 2	Energy industries (renewable/non- renewable sources)			Piaui	Brazil (BR)	Concord Resources Limited	Retirement for Person or Organization	MKS PAMP SA	These offsets are being retired on behalf of MKS PAMP SA as part of their requirements for Carbon Neutrality certification given by the Carbon Trust	05/07/202
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	Project Site State(Province Project Site Country Project VVB Crediting Period Start Date Crediting Period End Date Project Document	Piaul Brazil (BR) Earthood Services Private Limited 02/08/2017 01/08/2027 View	
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From Vintage	To Vintage	Serial Number	Quantity of Units	Unit Type	Project ID	Project Name	Project Type	Additional Issuance Certifications	Origination Program	Project Site State/Province	Project Country	Account Holder	Retirement Reason	Beneficial Owner	Retirement Reason Details	Date of Retiremer
01/01/2019	31/12/2019	10356- 206078730- 206085829- VCS-VCU-291- VER-CI-1-1522- 01012019- 31122019-0	7100	VCU	1522	Soubre Hydropower Project	Energy industries (renewable/non- renewable sources)			San Pedro Province	Cote D'Ivoire (CI)	Concord Resources Limited	Retirement for Person or Organization	MKS PAMP SA	These offsets are being retired on behalf of MKS PAMP SA as part of their requirements for Carbon Neutrality certification given by the Carbon Trust	05/07/202
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Appendix 2: Independent third-party assurance



Carbon Neutral Label

MKS PAMP

has achieved carbon neutrality and is committed to on-going carbon neutrality of the total carbon footprint of its

Gold Carbon Neutral Kilobar & Large Cast Bar

Carbon Trust Assurance has certified that this project has met all of the requirements for using the Carbon Trust Carbon Neutral Label.



A full description of the scope of certification and a detailed list of certified results can be found in the associated Certification Letter CERT-13314.

Awarded: 1st July 2022

Valid Until:

30th June 2023

for and on behalf of Carbon Trust Assurance Ltd,

Hugh Jones, Managing Director

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Appendix 3: Additional supporting information for interested parties



Figure 1. PAS 2060 certification process

Source: Carbon Trust. Adapted from "BSI - PAS 2060:2014: Specification for the demonstration of carbon neutrality: Figure 1 – Illustration of the cyclical process for demonstrating carbon neutrality, taking into account permitted baseline period exceptions". [Simplified version]



Figure 2. Organisational carbon footprinting

Source: Greenhouse Gas Protocol: http://ghgprotocol.org/