

# Global GreenTag<sup>Cert™</sup>

INTERNATIONAL EPD PROGRAM

Medical Gas Tube  
Sub-PCR MGT01:2023 V1

---



GLOBAL  
**GREEN TAG**  
INTERNATIONAL<sup>PTY LTD</sup>  
green product certification  
trust brands

**GLOBAL GREENTAG INTERNATIONAL PTY LTD**

**ENVIRONMENTAL PRODUCT DECLARATION (EPD) PROGRAM**

**Type III EPDs**

**Compliant to**

**EN 15804 +A2, ISO 14025 and ISO 21930**

**For construction products**

**Sub Product Category Rules based on Life Cycle Analysis**

**Medical Gas Tube Sub-PCR MGT01:2023 V1**

## I. Application

While the European Committee for Standardisation (CEN) standard EN 15804+A2 serves as core PCRs for all product categories, this document contains sub-PCRs that apply to a particular product category. The former is called the master PCR and the latter the sub-PCR document. When new product assessments are needed, a sub-PCR is developed to define new rules for that category. As environmental health legislation is enacted, rules in the master PCR document shall be revised with file name and revisions clearly marked so all such PCRs are identifiable in time.

## II. Authors

This sub-PCR, compiled by Dr Sharmina Begum, The Evah Institute Associate Engineer, Ecquate Pty Ltd. Rules were approved for Global GreenTag<sup>Cert™</sup> EPD program adoption by Dr Nana Bortsie-Aryee, Program Director, Global GreenTag International Pty Ltd.

## III. Terms of Validity

Product Category	Medical Gas Tube Sub-PCR MGT:2023 V1
PCR issue date	31/01/2024 and
Period of validity to	31/01/2029

## IV. Goal

This sub-PCR is an EPD developing guide for defined product sets with specified functionality. Users include specifiers, manufacturers and stakeholders. It is valid for all such products and related components according to standards and technical approvals herein.

## V. Product Set Definition

The declared product set includes for medical gas tube in systems used as:

- Medical Gas tube straight or bendable shapes being made of:
- metal, mineral, polymer, ceramic or composites in
- cast, extruded, homogenous, heterogeneous, melded, laminated forms.

System outcomes and results declared reflect product performance at reference conditions of exposure, strength, wear, temperature and humidity defined by 14025:2006, 6.7. Conformance required is performance to meet International and Australian Standards including:

- Australian Standard Copper Tube AS1432-2004 (2016)
- Australian Medical gas systems—Low pressure flexible hose assemblies AS 2902—2005
- Australian Medical gas systems — Installation and testing of non-flammable medical gas pipeline systems AS 2896:2021
- Australian and New Zealand Standard: Welding and brazing - Filler metals Filler metal for brazing and braze welding AS/NZS 1167.1:2005
- Australian and New Zealand Standard Method for testing pressure cycling resistance of pipes and fittings AS/NZS 3707
- Australian and New Zealand Standard Methods of test for plastics pipes and fittings AS/NZS 1462
- British/European Standard Copper Tube BS EN 1057:2006+A1:2010
- New Zealand Standard Copper Tube NZS 3501: 1976
- Standard Specification for Seamless Copper Tube for Medical Gas Systems ASTM B819

## VI. Declared Units

This PCR's declared unit is medical gas tube/kg or m length in any medical or health care sector.

## VII. Functional Units

The functional unit is 20 years use/declared unit, cradle to grave, and beyond the system boundary.

## References

Australian Standard Copper Tube AS1432-2004 (2016)  
 British/European Standard Copper Tube BS EN 1057:2006+A1:2010  
 Method for testing pressure cycling resistance of pipes and fittings AS/NZS 3707  
 New Zealand Standard Copper Tube NZS 3501: 1976  
 Precast concrete pipes AS/NZS 4058:2007  
 Steel tubes and tubulars for ordinary service AS 1074-1989  
 Whole life carbon assessment for the built environment, published by Royal Institution of Chartered Surveyors (RICS), 2<sup>nd</sup> Edition as in force on 1 July 2024

## Normative References

CEN/TR 15942 - 2014: Sustainability of construction works - Environmental Product Declarations- Communication formats: business to business, CENCML LCA methodology, Institute of Environmental Sciences (CML), Faculty of Science, University of Leiden, Netherlands  
 EN 15804:2012+A2:2019: Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products, CEN  
 Intergovernmental Panel on Climate Change IPCC 2013, Global Warming Potential 100-year, IPCC Fifth Assessment Report Climate Change.  
 Intergovernmental Panel on Climate Change. 2021. Assessment Report 6 Climate Change 2021: The Physical Science Basis.  
 ISO 9001:2008 Quality Management Systems Requirements  
 ISO 14001:2004 Environmental management systems: Requirements with guidance for use  
 ISO 14004:2004 EMS: General guidelines on principles, systems & support techniques  
 ISO 14015:2001 EMS: Environmental assessment of sites & organizations (EASO)  
 ISO 14020:2000 Environmental labels & declarations — General principles  
 ISO 14024:2009 Environmental labels & declarations -- Type I Principles & procedures  
 ISO 14025:2010 Environmental labels and declarations – Type III – environmental declarations - Principles and procedures.  
 ISO 14031:1999 EM: Environmental performance evaluation: Guidelines  
 ISO 14040:2006 EM: Life cycle assessment (LCA): Principles & framework, London, BSI, 2006.  
 ISO 14044:2006 EM: LCA: Requirement & guideline LCI; LCIA Interpretation, London, BSI, 2006.  
 ISO 14064:2006 EM: Greenhouse Gases: Organisation & Project reporting, Validation & verification  
 ISO 14644-1: Cleanrooms and associated controlled environments – Part 1: Classification of air cleanliness  
 ISO 15392:2008 Sustainability in building construction General principles  
 ISO 15686-1:2011 Buildings & constructed assets Service life planning Part 1: General principles  
 ISO 15686-2:2012 Buildings and constructed assets - Service life planning - Part 2: Service life prediction procedures.  
 ISO 15686-8:2008 Buildings and constructed assets - Service-life planning - Part 8: Reference service life and service-life estimation.  
 ISO 21929-1:2011 Sustainability in building construction Sustainability indicators Part 1 Framework  
 ISO 21930:2007 Building construction: Sustainability, Environmental declaration of building products  
 ISO 21931-1:2010 Sustainability in building construction Framework for methods of assessment for environmental performance of construction works Part 1: Buildings  
 ISO 21932:2013 Sustainability in buildings and civil engineering works -- A review of terminology

The Evah Institute, A Division of Ecquate Pty Ltd  
ABN 15129886675  
PO Box 123, Thirroul NSW 2515 Australia  
<http://www.evah.com.au>  
Phone +61 (0)7 5545 0998

Global GreenTag International Pty Ltd  
ABN 70155663013  
Level 38/71 Eagle St 4000 Australia  
[www.globalgreentag.com](http://www.globalgreentag.com)  
Tel. + 617 3399 9686