DECLARATION OF SAFETY, ENVIRONMENTAL COMPLIANCE

AND CAM ELIGIBILITY

Product: NOVERA Reflex

Thermo-reflective waterproof coating

Issuer of the Declaration / Manufacturer

NOVERA Technologies s.r.o.
Company ID (IČ): **239 47 136**
VAT ID (DIČ): **CZ 239 47 136**

Office:
Václavské náměstí 772/2
110 00 Prague 1 – Nové Město
Czech Republic

Manufacturing Facility:
Pohraniční 3017/11
703 00 Ostrava – Vítkovice
Czech Republic

Contact:
Phone: +420 606 765 914
Email: info@novera.at

(hereinafter referred to as "the Manufacturer")

Declaration

Based on the Safety Data Sheet (SDS), Technical Data Sheet (TDS), and available technical documentation for the product **NOVERA Reflex**, the Manufacturer hereby declares that this product:

1. **Does not contain any intentionally added substances** based on cadmium, lead, mercury, hexavalent chromium, arsenic, or selenium in concentrations exceeding **0.010% by weight for each metal** in the dry coating.

2. **Does not contain substances or mixtures classified as hazardous to the aquatic environment**, categories 1 or 2, with hazard codes **H400, H410, H411**, in accordance with Regulation (EC) No. **1272/2008 (CLP)**, as amended.
3. **Is not classified as a hazardous substance** with respect to health hazards, environmental hazards, or physical hazards, in accordance with Regulation (EC) No. **1272/2008 (CLP)**.

4. **Does not contain substances meeting the criteria for classification as PBT** (persistent, bioaccumulative and toxic) **or vPvB** (very persistent and very bioaccumulative) in accordance with **Annex XIII of Regulation (EC) No. 1907/2006 (REACH)**.
5. **Is not classified as hazardous under normal conditions of use and storage**, based on the studies, data, and information provided in the Safety Data Sheet.

Safe Use Statement

The product **NOVERA Reflex** may be used for its intended purpose **without any risk of adverse effects on human health or the environment**, provided that standard occupational health and safety practices and the Manufacturer's recommendations are strictly followed.

CAM / Sustainability Statement

This declaration is intended to support **environmental and sustainability assessments (CAM)** in construction and renovation projects.
Based on the above criteria, **NOVERA Reflex** complies with EU chemical and environmental regulations and is suitable for use in projects requiring materials with reduced environmental impact.

Attachments

- Safety Data Sheet (SDS) – NOVERA Reflex
- Technical Data Sheet (TDS) – NOVERA Reflex

Limitation of Responsibility

This declaration is issued **based on current knowledge, available documentation, and EU legislation valid as of the date of issue**.

It does not replace regulatory approvals required by local authorities and does not relieve users from compliance with applicable laws, standards, and regulations.

Place and date: Prague, 21 January 2026

Issued by:

Ing. Vladan Ninković
Chief Operating Officer (COO)
NOVERA Technologies s.r.o.

NOVERA TECHNOLOGIES

Independent Scientific Testing

Thermal Performance & Infrared Reflection

Technical Validation Summary

Microsphere-Based Thermo-Reflective Systems
for Roofs, Facades and Building Envelopes

Prepared for:

NOVERA Technologies s.r.o.
IC: 239 47 136
DIC: CZ23947136

Office:
Vaclavske namesti 772/2
110 00 Prague 1
Czech Republic

Manufacturing Facility:
Pohranicni 3017/11
703 00 Ostrava-Vitkovice
Czech Republic

Contact:
+420 606 765 914
info@novera.at
www.novera.at

Scientific Background and Testing

Independent laboratory testing conducted by:
Czech Technical University in Prague (CTU)
University Centre for Energy Efficient Buildings (UCEEB)

Technology Origin

Based on more than 40 years of microsphere research
developed for extreme industrial and aerospace applications.

Document Type

Technical Reference and Test Summary
(Not an official certificate)

1. Introduction

This document provides a structured technical summary of independent scientific testing and long-term research underlying the NOVERA thermo-reflective system.

Its purpose is to transparently present verified performance data, testing methodologies and scientific principles without marketing interpretation.

2. Technology Overview

NOVERA is a next-generation thermo-reflective surface system based on engineered ceramic microspheres embedded within a stable polymer matrix.

The system functions as an active thermal surface layer that influences heat behaviour through physical mechanisms rather than optical appearance.

Key physical principles include:

- broadband infrared reflection across NIR, MIR and FIR spectra
- high solar reflectance
- high thermal emissivity
- reduced heat conduction through hollow microsphere cores

3. Scientific Background

The physical foundations of the technology originate from more than four decades of research in microsphere-based systems developed for extreme operating environments, including aerospace and industrial applications.

The same physical principles are now applied to building envelopes to reduce thermal stress, stabilise structures and improve energy performance.

4. Independent University Testing

Thermal performance of the microsphere-based thermo-reflective system was independently evaluated by the Czech Technical University in Prague (CTU), University Centre for Energy Efficient Buildings (UCEEB).

The testing programme included:

- real outdoor surface temperature measurements
- heat flux monitoring through roof assemblies
- comparative analysis of treated and untreated reference surfaces
- numerical thermal simulation and validation

---

5. Verified Performance Results

Independent measurements confirmed the following results under defined operational conditions:

- surface temperature reduction of approximately **27 to 43 C**
- heat flow reduction through roof structures of **45 to 60 percent**
- significantly reduced thermal stress on load-bearing layers

These results demonstrate the effectiveness of infrared reflection combined with high thermal emissivity.

---

6. Solar Reflectance and Emissivity

Measured parameters include:

- Solar Reflectance (SR): approximately 0.88
- Thermal Emissivity (epsilon): approximately 0.86
- Solar Reflectance Index (SRI): approximately 107

This combination places the system among the highest-performing reflective surface technologies currently available.

---

7. Durability and Ageing Resistance

The system demonstrates:

- stable performance under accelerated ageing
- resistance to UV radiation
- resistance to thermal cycling and environmental exposure

Material behaviour confirms long-term physical stability beyond conventional pigment-based coatings.

---

8. Fire and Regulatory Testing

- Fire classification: B ROOF (T3)
- Laboratory testing according to ASTM E1980 and ASTM E903
- Service life classification: ETAG 005, durability class W3

9. Scope and Certification Status

The testing referenced in this document was conducted on the same material formulations and physical system currently used within NOVERA products.

Formal certification and updated testing under **NOVERA Technologies s.r.o.** are currently in progress.

This document serves as a technical reference and scientific validation summary and does not replace official certification documents.

10. Conclusion

Independent scientific testing and long-term research confirm that microsphere-based thermo-reflective technology provides measurable and durable reduction of surface temperatures, heat flow and thermal stress in building envelopes.

The NOVERA system represents a scientifically validated approach to building cooling, urban heat mitigation and long-term structural protection.

End of Document

Place and date: Prague, 15.01.2025

Authorized Representative:
Dip.-Ing. Vladan Ninkovic
Chief Operating Officer (COO)
Co-owner
NOVERA Technologies s.r.o.

Signature: _____