MP5, MP6 and MP Total Wetted Materials Compliance Statement

BS 6920:2014 and NSF/ANSI/CAN 61 · Rev. 2.0 · 20 October 2026

Statement

Halogen Systems, Inc. confirms that every polymer material in the MP5, MP6 and MP Total sensors that comes into contact with the sample water has been tested and found compliant with BS 6920:2014, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water*.

Seven polymer wetted materials were tested by NSF Wales Ltd, a UKAS-accredited laboratory (No. 0626, ISO/IEC 17025:2017). Six (cast epoxy, PES sensor body, polypropylene strainer, PTFE, CPVC and acrylic) passed the full BS 6920 programme. The seventh, a glass-filled PPS (PPS/GF) moulded component, passed the reduced set of tests that DWI Advice Sheet 8 specifies for small surface area products. All are compliant for cold drinking water, the intended service of the MP5, MP6 and MP Total. Other wetted components, including O-rings and seals, are sourced from suppliers holding BS 6920 or WRAS approval for those parts.

Halogen controls the manufacture of these materials so that every MP5, MP6 and MP Total shipped matches the tested specification.

In addition, the complete MP5, MP6 and MP Total sensors, including the platinum, gold and silver electrodes, the pH electrode and every other wetted surface, are certified by ALS Group USA, Corp., an ANAB-accredited certification body, to NSF/ANSI/CAN 61, *Drinking Water System Components – Health Effects*, and to NSF/ANSI/CAN 372 for lead content.

Summary of test evidence

Every polymer wetted material passed BS 6920 for cold water: six on the full programme, and the PPS/GF component on the Advice Sheet 8 small surface area tests. Four of the six also passed the full standard at 85°C.

Material	Part	Supplier	NSF report	Rating
EPON 815C epoxy	Cast component, polished	Westlake Epoxy	J-00553871, 08 Oct 2026	**Hot (85°C) and cold, all 7 tests passed**
Veradel PES 3600	Sensor body (moulded)	Demoldco Plastics (Solvay resin)	J-00526026, 23 Dec 2025	**Hot (85°C) and cold, all 7 tests passed**
Polypropylene 3620WZ	Strainer (moulded)	Demoldco Plastics (TotalEnergies resin)	J-00526027, 23 Dec 2025	**Hot (85°C) and cold, all 7 tests passed**
PTFE PB12000W (porous)	pH electrode salt bridge	PBY Plastics	J-00526022, 23 Dec 2025	**Hot (85°C) and cold, all 7 tests passed**
CPVC	Moulded part	Demoldco Plastics	J-00526021, 23 Dec 2025	**Cold water**
Acrylic	Balls	McMaster-Carr	J-00526023, 23 Dec 2025	**Cold water**
PPS/GF MPPSFG40BK	Moulded component	Modified Plastics	FI20231211060752 (J-00466515), 11 Dec 2023	**Cold water, Advice Sheet 8 tests**
O-rings and seals	Sealing	Approved suppliers	Supplier BS 6920 / WRAS evidence	**Approved**

The six fully tested materials passed the metals extraction test. Every metal was below its maximum admissible concentration, and lead, nickel, cadmium and chromium were below detection limits.

Whole-sensor certification: NSF/ANSI/CAN 61

BS 6920 tests each material separately. NSF/ANSI/CAN 61 assesses the complete assembled sensor as installed, so the two give complementary evidence.

- **Scope:** the complete sensor, listed as model series MP-XXX, which covers the MP5, MP6 and MP Total. Every wetted surface was included, among them the platinum, gold and silver electrodes and the pH electrode.
- **Assessment:** a review of the formulation of each wetted material, extraction testing of the assembled sensor with analysis for formulation-specific substances and screening for unexpected organic contaminants, and toxicological evaluation of the results to NSF/ANSI/CAN 600.
- **Conditions:** certified at a contact temperature of 82 ± 2 °C, considerably more demanding than the cold-water service the sensors are designed for.
- **Lead:** certified to NSF/ANSI/CAN 372, meeting the US “lead free” definition.
- **Status:** certificate issued 15 November 2024, covering the current build including the EPON 815C epoxy. ALS carries out annual surveillance, an independent check that the product and its materials remain unchanged.

Manufacturing controls

Halogen builds every MP5, MP6 and MP Total to the same material specification as the samples tested.

- **Epoxy surface finish:** all wetted epoxy surfaces are polished as a standard production step, matching the tested sample.
- **Fixed material grades:** the material grades and suppliers in the table above are locked in the bill of materials.
- **Approved seals:** O-rings and seals are bought only from suppliers with BS 6920 or WRAS approval for those parts.
- **Change control:** any change to a wetted material, supplier or finishing process is reviewed for drinking water compliance, and re-tested where needed, before release. Changes are also notified to ALS Group USA, the NSF/ANSI/CAN 61 certification body.

Scope of this statement

This statement covers material compliance with BS 6920 and whole-sensor certification to NSF/ANSI/CAN 61.

- **Product approvals:** it is not a WRAS product approval or a DWI Regulation 31 approval for the MP5, MP6 or MP Total. Halogen will advise customers separately on the status of those approvals.
- **Temperature:** the MP5, MP6 and MP Total are designed for cold drinking water, and every wetted material is rated for cold water. The epoxy, PES, polypropylene and PTFE are additionally rated for hot water up to 85°C.
- **Metallic parts:** BS 6920 covers the polymers. Apart from them, the only wetted materials are the electrodes, described here, and the pH glass, described below. The electrodes are platinum and gold measuring electrodes (two flat discs, each 2 mm in diameter, about 6.3 mm² in total) and a silver reference electrode (a flush 4 mm diameter disc, about 12.6 mm²). They are outside the scope of BS 6920 but included in the whole-sensor NSF/ANSI/CAN 61 certification.

- **pH electrode:** Every MP-XXX sensor includes a pH electrode with a lead-free pH glass membrane, a porous PTFE salt bridge and potassium chloride (KCl) reference electrolyte. The porous PTFE is the PTFE PB12000W in the table above, which passed the full BS 6920 programme (report J-00526022). The glass is an inert inorganic material, and KCl is a natural constituent of drinking water. The pH electrode, including its glass and electrolyte, is included in the whole-sensor NSF/ANSI/CAN 61 certification.

Supporting documents

Full NSF Wales test reports are available on request and are supplied complete and unaltered, as NSF requires.

1. NSF Wales report J-00553871: EPON 815C epoxy, 08 Oct 2026
2. NSF Wales report J-00526026: Veradel PES 3600 sensor body, 23 Dec 2025
3. NSF Wales report J-00526027: Polypropylene strainer, 23 Dec 2025
4. NSF Wales report J-00526022: porous PTFE PB12000W (pH salt bridge), 23 Dec 2025
5. NSF Wales report J-00526021: CPVC moulded part, 23 Dec 2025
6. NSF Wales report J-00526023: Acrylic balls, 23 Dec 2025
7. NSF Wales report FI20231211060752 (J-00466515): PPS/GF moulded component, Advice Sheet 8 tests, 11 Dec 2023
8. O-ring and seal supplier approval certificates
9. ALS Group USA certified product listing, NSF/ANSI/CAN 61 and 372, multiparameter chlorine sensor MP-XXX, issued 15 Nov 2024

Authorisation

Signed for and on behalf of Halogen Systems, Inc.

Signature: 

Name: Michael Silveri

Title: CEO

Date: 16th October 2026