



Defining Signage Types: Clarifying Traditional Neon and LED-Based Signage

Prepared for policy makers, standards authorities, and public communication.
Context: Parliamentary debate and televised documentary on protecting the Neon Craft Industry

1 Purpose of This Document

This document aims to clarify and distinguish between authentic neon signage (gas-discharge, hand-formed glass tubes) and LED-based imitation signage (modular LED systems and pre-manufactured alternatives). The growing use of the term "neon" to describe LED signage is misleading and undermines both consumer understanding and the skilled trade of traditional neon craftsmanship.

The objective is to remove ambiguity, promote accurate labelling, and support integrity in public procurement, legislation, and heritage preservation.

2 Categories of Signage Technologies

Traditional Gas Discharge Signage (Neon Signage)

Definition:

Signage formed using hand-bent glass tubes filled with noble gases.

Neon gas is used for red light, while argon gas (often combined with mercury and phosphor coatings) is used to create a wide range of other colours.

Light Source: Electrified gases activated by electrodes — neon for red, argon (with mercury and phosphor) for other colours

Terminology Principle: **Only this type of signage should be referred to as "Neon."**

Acrylic LED Signage

Definition:

Signage constructed using CNC-routed acrylic blocks with embedded LED modules or strips. Designed to mimic the shape and layout of traditional neon, these systems are assembled using standardised components.

Key Characteristics:

- Material: CNC-milled acrylic with embedded LED units
- Light Source: LED (light-emitting diode)
- Construction: Precision machine-routed acrylic, assembled using modular methods
- Appearance: Even, uniform glow with distinct edges; often block-out backed
- Durability: 5–10 years (depending on component quality and power supplies).

Recommended Label: "AcrylicLED Signage"

Prohibited Term: Avoid any use of the word "neon."

Flexible LED Signage

Definition:

Signage formed using flexible LED strip lights encased in silicone or resin diffusers. These are typically mounted to CNC-cut clear acrylic backings or panels and bent to emulate the shapes found in traditional neon signage.

Key Characteristics:

- Material: Silicone/resin-encased LED strip on CNC acrylic or aluminium backing
- Light Source: LED
- Construction: Modular assembly using prefabricated LED strip systems
- Appearance: Flat, diffused illumination depending on light source and housing
- Durability: 2–5 years

Recommended Label: "Flexible LED Signage" or "Silicone LED Strip Signage"

Prohibited Term: Avoid any use of the word "neon."

Summary Table

Feature	Traditional Neon	Acrylic LED Signage	Flexible LED Signage
Material	Glass tubing	CNC acrylic	Silicone or resin on acrylic/aluminum backing

Light Source	Electrified gases — neon for red, argon with phosphor for colours	LED	LED
Craftsmanship	Skilled, hand- formed	Machine-routed assembly	Modular assembly
Appearance	Organic, varied 360-degree glow	Sharp, uniform	Flat, diffused
Durability	10–30 years	5–10 years	2–5 years
Label As	"Neon" (only)	"Acrylic LED Signage"	"Flexible LED Signage"

3 Terminology Policy Recommendation

To eliminate ambiguity and protect consumer and specifier clarity:

- The term "Neon" must refer exclusively to gas-discharge tube signage.
- LED signage, regardless of format, must not use the word "neon" in product names, descriptions, or marketing.
- Public procurement specifications, planning regulations, and certification schemes should adopt this strict terminology policy.

4 Conclusion

Traditional neon signage is a skilled, heritage craft that deserves clear protection from misrepresentation.

Misuse of the term "neon" in LED marketing creates confusion and devalues genuine craftsmanship. By drawing a definitive boundary between neon and non-neon technologies, the signage industry can promote transparency, support traditional skills, and ensure fair competition.

This guidance document supports both heritage protection and modern innovation, if technologies are accurately represented.

*Prepared for circulation by the British Sign & Graphics Association (BSGA), in support of standards development (BS559), and public interest advocacy. *

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