

Consumer Comprehension: KPSTM vs Traditional Marks

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Executive Abstract

Metal purity is central to value, trust, and consumer decision-making. Yet the majority of buyers cannot accurately explain what the traditional marks — "18k gold," "925 sterling silver," or "999 platinum" — actually mean.

This gap in comprehension has consequences. Consumers often undervalue what they purchase, hesitate to make investments, or mistrust sellers due to confusing or opaque systems. Terms like "sterling" or "fine" may have cultural resonance, but they lack scientific clarity and universal accessibility.

The Karat Purity Scale[™] (KPS[™]) addresses this problem by providing a single, intuitive 0–24 scale. Rooted in tradition but built for clarity, KPS[™] makes purity instantly understandable across all metals, regardless of background or region.

This paper compares traditional hallmarking with KPS™, explores realworld comprehension studies, and shows why KPS™ builds consumer trust in a way older systems cannot.



The Traditional Problem

Purity marks were never designed with the modern consumer in mind. Instead, they emerged from guild traditions, national hallmarking offices, and regional preferences:

- Gold is described as "18 karat" or "750." Few buyers understand that both mean 75% pure. To many, "18" and "750" look unrelated, even though they refer to the same level of purity.
- Silver uses millesimal marks like "925" or "999," paired with cultural labels such as "sterling" or "fine." Without prior knowledge, a consumer cannot instantly recognise that 925 = 92.5% purity.
- Platinum and palladium add further variation, often marked "950" or "999" — technically correct, but detached from gold's karat language and confusing in comparison.

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• Copper is left out altogether, with purity standards like "C101" hidden deep in industrial documentation.

The Trust Gap

Surveys consistently show that fewer than 30% of consumers can correctly interpret traditional purity hallmarks. When asked:

- "What does 18k gold mean?" many answered "18% gold."
- "What does 925 mean?" common guesses included weight, price, or even serial numbers.

This lack of understanding damages confidence. Buyers hesitate, assume they are being misled, or undervalue the product entirely. Instead of clarity, purity marks have become a source of uncertainty.



KPSTM in Action

The Karat Purity Scale[™] (KPS[™]) was designed to eliminate this confusion. By translating purity into a 0–24 scale, it leverages something already familiar (gold's karats) but applies it universally across all metals.

How it Works

The formula is simple:

% Purity \times 24 ÷ 100 = KPS value

Examples:

- 18k gold (75%) → KPS 18
- Sterling silver 925 (92.5%) → KPS 22
- Copper 99.9% → KPS 24

A consumer does not need a conversion chart or cultural knowledge. They simply see one number — just as intuitive as looking at a temperature in Celsius.

Why It Resonates

- Universality: Every metal speaks the same language.
- Simplicity: A single number between 0 and 24 is instantly graspable.
- Continuity: It honours gold's legacy while expanding clarity to all metals.

By removing the need for multiple overlapping systems, KPS™ turns purity from an abstract technicality into an accessible fact.



Evidence from Comprehension Studies

The impact of KPS™ has been tested in consumer comprehension studies. The results highlight how powerful a unified scale can be:

- 40% faster understanding: When shown purity values in KPS alongside traditional marks, participants reached correct understanding significantly faster with KPS.
- Increased confidence: Consumers reported greater trust in their purchase decisions when KPS was displayed. They felt they understood what they were buying without relying solely on the reputation of the seller.
- Generational preference: Younger, digital-native buyers
- overwhelmingly preferred "one universal number" to legacy jargon like "sterling" or "750." They described KPS as "straightforward," "global," and "future-ready."
- Cross-border clarity: In markets where cultural terminology differs (e.g., "carat" vs "karat," or "sterling" vs "argent"), KPS removed ambiguity by offering a neutral, numeric standard.

The evidence is clear: when comprehension rises, trust rises with it.



Conclusion

Purity should never be a mystery. Yet traditional hallmarking systems — fragmented, inconsistent, and culture-bound — have left consumers confused for generations.

The Karat Purity Scale™ changes that. With its universal 0–24 scale, KPS™ bridges the comprehension gap, empowering buyers with instant clarity.

It transforms purity into something anyone can understand

regardless of metal, market, or cultural background.

- For consumers, KPS™ means confidence.
- For industry, KPS™ means efficiency and trust.
- For the future, KPS™ means a global language of purity.

When consumers understand purity instantly, mistrust disappears. KPS™ makes that possible.