
# Shade Inclusivity Quotient (SIQ) v1.0

A Standard for Evaluating Shade Range Coverage

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**Maintained by Beauty Intelligence**

# 1. Purpose of the Standard

The beauty industry lacks a consistent, objective way to evaluate whether a complexion product range meaningfully covers the spectrum of human skin tones.

Brands often rely on internal heuristics, subjective benchmarks, or comparisons to peers, none of which provide a stable or transparent basis for decision-making. Shade counts alone are insufficient, as they fail to account for distribution, redundancy, or gaps within the spectrum.

The Shade Inclusivity Quotient (SIQ) standard exists to address this problem.

SIQ defines a structured, repeatable framework for evaluating shade range coverage based on physical shade distribution rather than marketing claims, brand intent, or narrative positioning. It enables consistent comparison across brands, categories, and time while remaining independent of consumer-facing language.

SIQ is designed to answer a specific evaluative question:

**How well does a given shade range cover the spectrum of human skin tones?**

By providing a standardized evaluation framework, SIQ supports executive decision-making, portfolio planning, and accountability without prescribing creative direction or operational tactics.

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# 2. Relationship to the Universal Shade Number (USN)

SIQ is explicitly dependent on the Universal Shade Number (USN) standard.

USN defines how individual shades are classified within physical color space. SIQ uses those classifications as its sole input layer.

This separation is intentional and foundational:

- **USN classifies** where a shade sits in the spectrum
- **SIQ evaluates** how a collection of those shades performs as a range

SIQ does not reinterpret, override, or extend USN classifications. All depth and chromatic positioning referenced by SIQ are inherited directly from the applicable USN version.

By separating classification (USN) from evaluation (SIQ), the standards ensure:

- Transparency in methodology
- Stability across versions
- Modularity for future diagnostics and audits
- Clear boundaries between measurement and judgment

Any changes to USN are governed independently and versioned separately. SIQ versions explicitly declare which USN version they reference.

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# 3. What SIQ Is — and What It Is Not

## What SIQ Is

The Shade Inclusivity Quotient is:

- A standardized evaluation framework for shade range coverage
- Based on physically classified shade data (via USN)
- Deterministic and repeatable
- Comparable across brands, categories, and time
- Designed for executive and operational decision-making
- Neutral with respect to brand intent, messaging, or values

SIQ evaluates *outcomes*, not motivations.

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## What SIQ Is Not

SIQ is not:

- A judgment of brand ethics, values, or inclusivity intent
- A consumer-facing score or marketing claim

- A prescription for product development actions
- A replacement for creative or strategic decision-making
- A commentary on brand storytelling or shade naming
- A diagnostic explanation of *why* gaps exist

SIQ does not determine whether a brand is “good” or “bad.”

It provides a structured way to describe *what exists*, not *what should be*.

Downstream tools, diagnostics, and audits may use SIQ results to guide recommendations, but those interpretations are explicitly out of scope for the SIQ standard itself.

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# 4. Inputs Used by the Standard

SIQ evaluates a shade range using **physically classified shade data** derived from the Universal Shade Number (USN).

## Required Inputs

For a shade range to be evaluated under SIQ, the following inputs are required:

- A discrete set of individual shades
- Each shade classified according to the applicable **USN version**
- Valid depth positioning for every shade in the range

SIQ does not ingest:

- Shade names
- Marketing descriptors
- Price points
- Sales volume

- Consumer demographics
- Brand positioning statements

Only the **physical distribution of shades** is evaluated.

### Dataset Assumptions

SIQ assumes that:

- Each shade represents a distinct SKU intended for consumer use
- All shades are evaluated as peers within the same range
- The dataset reflects the range as offered at the time of evaluation

Incomplete, simulated, or aspirational ranges may be evaluated for internal planning purposes, but such use cases fall outside the scope of formal SIQ reporting.

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## 5. Evaluation Dimensions

SIQ evaluates shade ranges across **multiple structural dimensions** to capture not just how many shades exist, but how effectively they cover the spectrum.

These dimensions are designed to be:

- Orthogonal (each measures a distinct structural property)
- Deterministic
- Interpretable at a high level without exposing implementation details

### SIQ v1.0 Evaluation Dimensions

**Depth Coverage**
Evaluates whether the range spans the full depth spectrum defined by USN canonical depth bands.

**Distribution Balance**
Evaluates how evenly shades are distributed across the depth spectrum, identifying over-concentration in specific regions.

**Continuity and Gaps**
Evaluates whether meaningful gaps exist between adjacent shades, particularly in underserved depth regions.

**Redundancy**
Evaluates whether multiple shades occupy nearly identical positions in the spectrum, reducing effective coverage.

Each dimension contributes to the overall SIQ score, but no single dimension is sufficient on its own to characterize inclusivity.

### Important Clarification

SIQ evaluates **structural coverage**, not formulation quality, undertone preference, or consumer fit. A technically balanced range may still fail specific consumer needs, and a narrow range may still succeed commercially.

These considerations are intentionally out of scope.

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## 6. Scoring Framework

SIQ produces a **single composite score** expressed on a standardized numeric scale.

### Score Characteristics

The SIQ score is:

- Deterministic for a given dataset and version
- Comparable across brands and categories
- Stable across time within the same version
- Designed to support benchmarking and trend analysis

The score reflects **overall structural coverage**, incorporating all evaluation dimensions defined in Section 5.

### Transparency and Abstraction

While SIQ is designed to be explainable at a conceptual level, the specific weighting, thresholds, and internal calculations used to derive the composite score are considered part of the standard's implementation and are not disclosed in this document.

This abstraction ensures:

- Consistency across evaluations
- Protection against gaming
- Long-term stability of the standard

SIQ scores should be interpreted as **signals**, not prescriptions.

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## 7. Rating Bands

To support interpretability and executive decision-making, SIQ scores may be grouped into a limited set of **rating outcomes**.

SIQ v1.0 intentionally defines **two positive performance tiers**, with explicit signaling for ranges that fall below acceptable structural coverage.

### SIQ v1.0 Rating Outcomes

- **Platinum**
  Indicates comprehensive structural coverage across the depth spectrum, with balanced distribution, minimal redundancy, and no critical gaps.

- **Gold**
  Indicates strong overall coverage that meets baseline structural expectations, with minor imbalances that do not materially restrict accessibility.

- **Improvement Needed**
  Indicates insufficient structural coverage, with notable gaps, imbalance, or over-concentration that limits accessibility for portions of the spectrum.

- **Critical Gap**
  Indicates severe structural deficiencies, including major coverage gaps or exclusion of

large portions of the depth spectrum.

### Important Clarification

Rating outcomes:

- Are descriptive, not judgmental
- Do not imply intent or values
- Do not prescribe corrective actions

They exist to clearly distinguish between:

- acceptable coverage,
- suboptimal coverage, and
- structurally deficient ranges.

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## 8. Interpretation Guidelines

SIQ scores and rating bands are designed to be interpreted **in context**.

### Appropriate Uses

SIQ may be used to:

- Benchmark shade ranges against peers
- Track changes in coverage over time
- Support portfolio planning and expansion decisions
- Identify when deeper analysis is warranted

### Inappropriate Uses

SIQ should not be used to:

- Make claims about consumer satisfaction
- Assert ethical or moral positioning
- Evaluate formulation quality or performance
- Infer sales potential or market success

A high SIQ score indicates strong structural coverage. It does not guarantee commercial success, nor does a lower score imply failure.

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# 9. Versioning and Stability

SIQ is a versioned standard designed for stability and consistency.

This document defines **SIQ v1.0**.

### Versioning Principles

- Identical datasets evaluated under the same SIQ version will always produce identical results
- Changes to evaluation logic, dimensions, or thresholds require a new version
- Historical scores will never be silently reinterpreted

Each SIQ version explicitly declares:

- The USN version it references
- Any material differences from prior versions

This ensures long-term comparability and trust in reported results.

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# 10. Governance and Stewardship

SIQ is maintained and stewarded by **Beauty Intelligence**.

Governance responsibilities include:

- Maintaining versioned documentation
- Ensuring alignment with referenced USN versions
- Publishing updates and clarifications when required
- Preserving interpretive integrity across implementations

Governance is intentionally lightweight to allow evolution of the standard while maintaining confidence in its stability.

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# 11. Summary for Decision-Makers

The Shade Inclusivity Quotient (SIQ) provides a **structured, objective framework** for evaluating how effectively a complexion product range covers the spectrum of human skin tones.

In summary:

- SIQ evaluates **outcomes**, not intent
- SIQ is grounded in **physical shade classification (USN)**
- SIQ is **deterministic, comparable, and versioned**
- SIQ highlights structural strengths and limitations without prescribing action
- SIQ supports executive decision-making, benchmarking, and accountability

SIQ exists to bring **clarity, consistency, and transparency** to shade range evaluation — enabling informed decisions without constraining creativity or strategy.