

Use Case Decision Tree

SVG vs PNG vs WebP: The Definitive Comparison

About This Document

This reference accompanies the article: SVG vs PNG vs WebP: The Definitive Comparison

Read the full article at: <https://svgeneration.com/docs/svg-vs-raster-comparison>

Article Summary

A data-driven comparison of SVG, PNG, WebP, and AVIF for background patterns with real file size benchmarks.

PNG: The Legacy Format

PNG (Portable Network Graphics) uses lossless compression. It's excellent for patterns with flat colours and hard edges the compression algorithm handles these extremely well. PNG supports alpha transparency, making it suitable for overlay patterns. Drawback: files are significantly larger than WebP/AVIF equivalents, and 100% of modern browsers support better alternatives.

WebP: The Modern Raster Choice

WebP (Google's format) is 2535% smaller than equivalent PNG files for the same quality. Supported by 97% of browsers as of 2026. For raster pattern tiles, WebP is the best balance of support and compression. Use `<picture>` element with WebP as primary and PNG as fallback.

AVIF: Next-Generation Compression

AVIF achieves 50% better compression than WebP for photographic content and performs similarly for patterns. Browser support is at 93% as of 2026. For new projects targeting modern browsers, AVIF is the right raster choice. For patterns, the tiny file sizes mean the format difference is minimal an SVG will still beat both for geometric patterns.

Free Resources

Visit [SVGeneration.com](https://svgeneration.com) for 600 free SVG background patterns. No attribution required.

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