

Website Speed Metrics

Metric	Explanation	Target	A	B	C
Largest Contentful Paint (LCP)	Measures how long it takes for the largest visible element (image, text block, etc.) to load.	Under 2.5s (Good), 2.5-4s (Needs Improvement), Over 4s (Poor)			
Time to First Byte (TTFB)	Time between the user request and the first byte received from the server.	Under 200ms is ideal.			
First Contentful Paint (FCP)	Time when the first visible content appears on the screen.	Under 1.8s (Good)			
Speed Index	Measures how quickly content is visually displayed during load.	Under 3.4s (Good)			
Cumulative Layout Shift (CLS)	Measures unexpected layout shifts during loading.	Below 0.1 (Good)			
Total Blocking Time (TBT)	Measures the total time the page is unresponsive due to JavaScript execution.	Under 200ms .			
Interaction to Next Paint (INP) <i>(New Core Web Vital replacing FID in 2024)</i>	Measures responsiveness by tracking the delay between user interaction and visual response.	Under 200ms (Good)			
Redirect Duration	Time spent following HTTP redirects before loading the final page.	0ms (Avoid redirects when possible)			
Connection Duration	Time taken to establish a connection with the server (DNS lookup, TLS handshake).	Under 100ms .			
Backend Duration	Time spent on the server processing the request before sending a response.	Under 500ms .			
First Input Delay (FID) <i>(Being replaced by INP)</i>	Measures the time from the first user interaction to when the browser responds.	Under 100ms (Good)			
Time to Interactive (TTI)	Time when the page becomes fully interactive.	Under 3.8s .			
Fully Loaded Time	Time when all resources (images, scripts, etc.) have loaded completely.	Under 3 seconds for best performance.			

These are key metrics from **Google PageSpeed Insights** and **GTmetrix**, with the most critical ones being LCP, CLS, INP (formerly FID), and TBT for Core Web Vitals.