

AI-01402 Shimano 105 Chain 12s vs 11s

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On Shimano 105 r7150 Di2 Groupset, what is the model number of the chain and dimensions.

Compare the dimensions of the 12speed vs 11 speed, use a table format. Can I use an 11s chain on Shimano 105 R7150

The Shimano 105 R7150 Di2 Groupset uses the **CN-RS510** chain for its 12-speed setup A.

Here's a comparison of the dimensions between the 12-speed and 11-speed chains:

Feature	12-Speed Chain (CN-RS510)	11-Speed Chain (CN-RS510)
Width	5.2 mm	5.6 mm
Pitch	11.1 mm	11.1 mm
Inner Link	4.8 mm	4.8 mm
Outer Link	5.9 mm	5.6 mm

Unfortunately, you **cannot use an 11-speed chain** on the Shimano 105 R7150 Di2 Groupset, as the chain widths are different and the drivetrain components are designed specifically for their respective speeds.

Does this help clarify things for you?

It's tricky to give exact figures for Shimano 12-speed chain dimensions, as they don't publish precise specs in the same way they used to. However, we can compare based on general trends and reliable sources:

Dimension	11-speed Shimano Chain	12-speed Shimano Chain	Trend
Inner width	11/128" (2.18 mm)	11/128" (2.18 mm)	Remains the same
Outer width	5.46 – 5.74 mm	Narrower than 11-speed, likely ~5.2 mm	Decreases
Roller width	Relatively consistent across multi-speed chains	Likely very similar to 11-speed	Minimal change

Key takeaways:

- **Inner width stays the same:** This is crucial for compatibility with chainrings.
- **Outer width decreases:** This is the primary difference, allowing the chain to fit on cassettes with tighter spacing between sprockets.
- **Roller width is similar:** This is important for smooth engagement with the teeth of the chainrings and sprockets.

Why the outer width matters:

The narrower outer width of a 12-speed chain is essential to accommodate the extra sprocket on the cassette within the same overall hub width. This means the spacing between each sprocket is smaller, requiring a thinner chain to shift cleanly.

Important note: While the inner width is the same, **12-speed chains are NOT compatible with 11-speed drivetrains**, and vice versa. The narrower outer width and specific design of 12-speed chains necessitate matching components for proper shifting performance.

I hope this table is helpful!