

Coffee Roasting Phases

Phase	Temperature (°C)	Key Processes
Drying	100–150	Evaporation of moisture, no browning
Maillard	150–170	Amino acids and sugars react, color change, aroma precursors form
Caramelization	170–190	Sugars break down, sweetness and complexity increase
First Crack	195–205	Expansion, audible cracking, bean structure opens
Development / Post-First Crack	205–220	Flavor balance develops, acidity decreases, body increases
Second Crack	225–230	Cell walls fracture again, oils migrate, smoky notes appear
Dark Roast / Pyrolysis	230–245	Organic degradation, risk of carbonization above 245°C

500g Roaster BT reads -15c (Artisan BT=150 is actually 175 bean temp)

Since BT reads low, measure DEVEL phase with **relative increase** of BT in °C instead of absolute temperatures.

Artisan Scope right click on Stats Bar to view time / % / °C

Skywalker / itop / precision 500g Roaster Manual “table 2”

table 2

Level	Crack	Colour	temperature developed
Light	middle or near end of 1st crack with intensive sounds	cinnamon light brown	9-11°C after 1st crack start
Medium	after end of 1st crack sounds stop	brown	13-16°C after 1st crack start
Dark	near beginning of 2rd crack no sound or slight sounds	dark brown	16-20°C after 1st crack start