

MacPale Ale

Created Wednesday May 4th 2016



raiderrob

Method: **BIAB** Style: **American Pale Ale** Boil Time: **60 min** Batch Size: **5.5 gallons** (ending kettle volume)

Pre Boil Size: **7.5 gallons** Pre Boil Gravity: **1.044** (recipe based estimate) Efficiency: **80%** (ending kettle)

Source: **raiderrob67** Calories: **194 calories** (Per 12oz) Carbs: **18 g** (Per 12oz)

Original Gravity: **1.059** Final Gravity: **1.012** ABV (standard): **6.29%** IBU (tinseth): **50.46** SRM (morey): **8.87** ■ Mash pH: **5.71**

Fermentables

Amount	Fermentable	PPG	°L	Bill %
8 lb	United Kingdom - Maris Otter Pale	38	3.75	72.7%
1 lb	American - Vienna	35	4	9.1%
2 lb	American - Caramel / Crystal 20L	35	20	18.2%
11 lb	Total			

Hops

Amount	Variety	Type	AA	Use	Time	IBU	Bill %
1 oz	Azacca	Pellet	12	First Wort		26.78	11.1%
0.5 oz	Azacca	Pellet	12	Boil	10 min	7.96	5.6%
0.5 oz	Cascade	Pellet	5	Boil	10 min	3.32	5.6%
1 oz	Azacca	Pellet	12	Boil	5 min	8.75	11.1%
1 oz	Cascade	Pellet	5	Boil	5 min	3.65	11.1%
1 oz	Azacca	Pellet	15	Dry Hop	5 days		11.1%
1 oz	Cascade	Pellet	7	Dry Hop	5 days		11.1%
1.5 oz	Azacca	Pellet	15	Dry Hop	3 days		16.7%
1.5 oz	Cascade	Pellet	7	Dry Hop	3 days		16.7%

Mash Guidelines

Amount	Description	Type	Temp	Time
8 gal		Infusion	154 °F	90 min

Yeast

Fermentis - Safale - American Ale Yeast US-05

Amount: 1 Attenuation (avg): 81% Flocculation: Medium

Optimum Temp: 54 - 77 °F Starter: No

Fermentation Temp: 75 °F Pitch Rate: 0.35 (*M cells / ml / ° P*) 106 B cells required

Priming

CO₂ Level: 2.52 Volumes

Target Water Profile Light colored and hoppy

Ca⁺² 75

Mg⁺² 5

Na⁺ 10

Cl⁻ 50

SO₄⁻² 150

HCO₃⁻ 0

Quick Water Requirements

Water	Gallons	Quarts
Total mash water needed	8.13	32.5
Grain absorption losses	-1.38	-5.5
Starting boil volume	6.75	27
Boil off losses	-1.25	-5
Amount in kettle at end of boil	5.5	22
Kettle dead space	-0.06	-0.3
Hops absorption losses	-0.15	-0.6
Estimated amount in fermentor	5.29	21.2
Total:	8.13	32.5

Notes

2nd place, American Pale Ale in Redding Beer Cup 2019