

APA Amarillo-Cascade

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **34**
- SRM **4.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	0.7 kg (14.9%)	80.5 %	4
Grain	Viking Pale Ale malt	4 kg (85.1%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	14 g	90 min	9.9 %
Whirlpool	Cascade PL	15 g	6 min	5.2 %
Aroma (end of boil)	Cascade PL	50 g	10 min	5.2 %
Whirlpool	Amarillo	15 g	6 min	9.5 %
Dry Hop	Cascade PL	20 g	2 day(s)	5.2 %
Dry Hop	Amarillo	30 g	2 day(s)	9.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP013 - London Ale Yeast	Ale	Slant	360 ml	White Labs