

## AIPA CASCADE #3

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **39**
- SRM **8.6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **17.4 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **70 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **13 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **70C**
- Keep mash **5 min** at **76C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **20.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.47 kg (33.8%)	81 %	4
Grain	Pszeniczny	0.64 kg (14.7%)	85 %	4
Grain	Viking Pale Ale malt	1.92 kg (44.1%)	80 %	5
Grain	Crystal 160	0.32 kg (7.4%)	75 %	160

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	15.5 %
Boil	Cascade PL	16 g	10 min	5.2 %
Boil	Cascade PL	32 g	5 min	5.2 %
Aroma (end of boil)	Cascade PL	16 g	0 min	5.2 %
Dry Hop	Cascade PL	48 g	6 day(s)	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Slant	128 ml	---