

## micro IPA Cascade PL

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- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **34**
- SRM **4.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **28.6 liter(s)**

### Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **25 min**

### Mash step by step

- Heat up **23.4 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **25 min** at **72C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	4 kg (76.9%)	80 %	8
Grain	Pszeniczny	0.2 kg (3.8%)	85 %	4
Grain	Rice, Flaked	1 kg (19.2%)	70 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	25 g	30 min	5.2 %
Aroma (end of boil)	Cascade PL	50 g	15 min	5.2 %
Aroma (end of boil)	Cascade PL	100 g	5 min	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	2.5 g	Boil	10 min