

## Polskie Ale (Cascade PL)

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **37**
- SRM **4.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **10 %**
- Size with trub loss **33 liter(s)**
- Boil time **75 min**
- Evaporation rate **12 %/h**
- Boil size **41.4 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.7 liter(s)**
- Total mash volume **40.7 liter(s)**

### Steps

- Temp **20 C**, Time **0 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **31.7 liter(s)** of strike water to **20C**
- Add grains
- Keep mash **0 min** at **20C**
- Keep mash **40 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **41.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	9.05 kg (100%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	20 g	40 min	8 %
Boil	Cascade PL	20 g	30 min	8 %
Boil	Cascade PL	30 g	20 min	8 %
Boil	Cascade PL	30 g	10 min	8 %
Boil	Cascade PL	30 g	5 min	8 %
Aroma (end of boil)	Cascade PL	30 g	0 min	8 %