

## Epa

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **44**
- SRM **7.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **18.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (95.2%)	80 %	5
Grain	Strzegom Karmel 300	0.15 kg (2.4%)	70 %	299
Grain	Karmelowy Jasny 30EBC	0.15 kg (2.4%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Admiral	25 g	60 min	13 %
Boil	Progress	30 g	15 min	7.4 %
Boil	Progress	50 g	0 min	7.4 %