

## EPA

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **73**
- SRM **12.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **70 C**, Time **120 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **120 min** at **70C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (36.4%)	80 %	4
Grain	Strzegom Pale Ale	2 kg (36.4%)	79 %	6
Grain	Strzegom Karmel 150	1 kg (18.2%)	75 %	150
Grain	płatki ryżowe	0.5 kg (9.1%)	80 %	1

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	30 g	60 min	10 %
Boil	lunga	40 g	60 min	11 %
Dry Hop	Admiral	35 g	3 day(s)	13.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale