

## Pale

- Gravity **12.6 BLG**
- ABV ---
- IBU **2**
- SRM **5.8**
- Style **English IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **29.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **63 C**, Time **70 min**
- Temp **73 C**, Time **5 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **70 min** at **63C**
- Keep mash **5 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	2.5 kg (44.6%)	81 %	4
Grain	Weyermann - Pale Ale Malt	2.5 kg (44.6%)	85 %	7
Grain	Strzegom Monachijski typ I	0.2 kg (3.6%)	79 %	16
Grain	Weyermann - Carared	0.2 kg (3.6%)	75 %	45
Grain	Weyermann - Caraamber	0.2 kg (3.6%)	75 %	65

### Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Magnat	30 g	70 min	13.7 %
Mash	Mittelfruh	30 g	20 min	4 %
Aroma (end of boil)	Mittelfruh	30 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale S-04	Ale	Dry	11 g	Safale
-------------	-----	-----	------	--------