

## polskie w 24

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **23**
- SRM **4.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **63 C**, Time **20 min**
- Temp **73 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.5 kg (81.8%)	82 %	4
Grain	Strzegom Monachijski typ I	1 kg (18.2%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	5 g	60 min	12.5 %
Boil	Citra	8 g	25 min	12 %
Aroma (end of boil)	Citra	10 g	10 min	12 %
Whirlpool	Citra	15 g	20 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	12.65 g	Fermentis