

## Nn

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **46**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**

### Mash step by step

- Heat up **10.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg (69.4%)	80 %	4
Grain	Pszeniczny	0.7 kg (19.4%)	85 %	4
Grain	Płatki owsiane	0.4 kg (11.1%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	12 g	60 min	13 %
Boil	Amarillo	20 g	15 min	9.5 %
Whirlpool	Citra	25 g	0 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Slant	100 ml	---