

## jasne polskie 21.02

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **14**
- SRM **4.7**
- Style **Old Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **20.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.9 kg (42.6%)	82 %	4
Grain	Viking Pale Ale malt	3.6 kg (52.9%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.3 kg (4.4%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Whirlpool	Lublin (Lubelski)	15 g	5 min	4 %
Whirlpool	Marynka	15 g	5 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Culture	1200 g	Safale

### Extras

Type	Name	Amount	Use for	Time
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Water Agent	chlorek wapnia	4 g	Mash	90 min
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