

## Przepis 3

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **22**
- SRM **5.3**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **7 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **92 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (74.5%)	80 %	5
Grain	Strzegom Monachijski typ II	1.2 kg (25.5%)	79 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	10 g	60 min	11.2 %
Aroma (end of boil)	Perle	15 g	20 min	7 %
Whirlpool	lunga	15 g	0 min	5.1 %
Whirlpool	Oktawia	20 g	0 min	7.1 %
Aroma (end of boil)	Perle	15 g	15 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-4	Lager	Slant	100 ml	---