

## Z wora

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **37**
- SRM **5.2**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **17.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (81.6%)	79 %	7
Grain	Viking Wheat Malt	0.25 kg (5.1%)	83 %	5
Grain	Strzegom Karmel 30	0.25 kg (5.1%)	75 %	35
Grain	płatki jęczmienne	0.4 kg (8.2%)	65 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	Lublin (Lubelski)	30 g	25 min	5 %
Boil	Lublin (Lubelski)	20 g	10 min	5 %
Dry Hop	Lublin (Lubelski)	20 g	5 day(s)	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	---

### Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Fining	mech irlandzki	5 g	Boil	15 min
--------	----------------	-----	------	--------