

## Pierwsze ostre

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **10**
- SRM **26.3**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **73 C**, Time **40 min**

### Mash step by step

- Heat up **10.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **40 min** at **73C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	3 kg (88.2%)	79 %	16
Grain	Strzegom Czekoladowy ciemny	0.25 kg (7.4%)	68 %	1200
Grain	Karmelowy Czerwony	0.15 kg (4.4%)	75 %	59

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	5 g	60 min	13.5 %
Mash	Saaz (Czech Republic)	20 g	40 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - Pure Ale Yeast 7	Ale	Dry	10 g	Gozdawa

### Extras

Type	Name	Amount	Use for	Time
Spice	chilli	100 g	Secondary	---