

## #3 Kto warzy osatki ten jest piękny i gładki #1

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **16**
- SRM **4.4**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **16.5 liter(s)**

### Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **12.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.75 kg (91.1%)	79 %	6
Grain	Pszeniczny	0.145 kg (3.5%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.22 kg (5.3%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	5 g	60 min	9.5 %
Boil	Cascade	2 g	60 min	6 %
Boil	Amarillo	11 g	30 min	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis