

## Stout z pszenicą

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **72**
- SRM **44.5**
- Style **American Stout**

### 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 **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (44.8%)	80 %	5
Grain	Strzegom Pszeniczny	2 kg (29.9%)	81 %	6
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (7.5%)	73 %	1001
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3%)	68 %	1200
Grain	Strzegom Barwiący	0.2 kg (3%)	68 %	1300
Grain	Płatki owsiane	0.8 kg (11.9%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	50 g	60 min	7 %
Boil	Chinook	25 g	30 min	13 %
Boil	Chinook	25 g	15 min	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Slant	300 ml	Mangrove Jack's