

## Stout /płatki dębowe - 2 wersje/

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **18**
- SRM **29.1**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (79.4%)	80 %	4
Grain	Płatki owsiane	0.3 kg (4.8%)	85 %	3
Grain	Weyermann - Carafa I	0.25 kg (4%)	70 %	850
Grain	Jęczmień palony	0.25 kg (4%)	55 %	1400
Grain	Karmelowy Jasny 30EBC	0.25 kg (4%)	75 %	30
Grain	Strzegom Czekoladowy jasny	0.25 kg (4%)	68 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	15 min	10 %
Boil	Lublin (Lubelski)	30 g	15 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	płatki dębowe macerowane w likierze ziołowym	25 g	Secondary	3 day(s)
Flavor	płatki dębowe macerowane w whisky	25 g	Secondary	5 day(s)