

## #B004 Stout

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **21**
- SRM **98.7**

### Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **24.9 liter(s)** of **76C** water or to achieve **32.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2 kg (23.8%)	80 %	3
Grain	Strzegom Czekoladowy ciemny	1 kg (11.9%)	68 %	1200
Grain	Jęczmień palony	0.5 kg (6%)	55 %	985
Grain	Barwiący	0.5 kg (6%)	55 %	985
Liquid Extract	ekstrakt słodowy ciemny Bruntal	3.4 kg (40.5%)	90 %	621
Sugar	glukoza	1 kg (11.9%)	100 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Boil	Citra	15 g	30 min	12 %
Boil	Citra	20 g	10 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Slant	300 ml	home

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	5 g	Boil	60 min
Water Agent	Kwas mlekowy	2 g	Boil	60 min