

## stout

- Gravity **13.1 BLG**
- ABV ---
- IBU **36**
- SRM **43.8**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsneński 6-rzędowy	3 kg (56.6%)	80 %	5
Grain	Pszeniczny	1 kg (18.9%)	85 %	4
Grain	Chocolate Malt (UK)	0.5 kg (9.4%)	73 %	1200
Grain	Biscuit Malt	0.3 kg (5.7%)	79 %	45
Grain	Strzegom Karmel 600	0.3 kg (5.7%)	68 %	601
Grain	Jęczmień palony	0.2 kg (3.8%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Boil	Fuggles	15 g	30 min	4.5 %
Boil	Lublin (Lubelski)	15 g	30 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	10 g	15 min	4 %
Aroma (end of boil)	Fuggles	15 g	5 min	4.5 %
Aroma (end of boil)	Tettnang	15 g	5 min	4 %
Aroma (end of boil)	Fuggles	20 g	0 min	4.5 %
Aroma (end of boil)	Tettnang	15 g	0 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

### Extras

Type	Name	Amount	Use for	Time
Spice	Cinnamon	6 g	Mash	---