

## Brown Ale (SH Centennial)

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **64**
- SRM **28.8**
- Style **Brown IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 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 **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

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

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.5 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	2 kg (37%)	80 %	5
Grain	Karmelowy Czerwony	1 kg (18.5%)	75 %	59
Grain	Carahell	1 kg (18.5%)	77 %	26
Grain	Weyermann Caramunich 3	0.5 kg (9.3%)	76 %	150
Grain	Carafa	0.2 kg (3.7%)	70 %	664
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.7%)	68 %	1200
Grain	Oats, Flaked	0.5 kg (9.3%)	80 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	40 g	60 min	10.5 %
Boil	Centennial	20 g	30 min	10.5 %
Boil	Centennial	30 g	1 min	10.5 %

### Yeasts

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