

# Stout HB69

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **27**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **30.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **23.6 liter(s)**
- Total mash volume **29.5 liter(s)**

## Steps

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

## Mash step by step

- Heat up **23.6 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	4 kg (67.8%)	83 %	6
Grain	Barley, Flaked	0.83 kg (14.1%)	70 %	4
Grain	Oats, Malted	0.5 kg (8.5%)	80 %	2
Grain	Black (Patent) Malt	0.37 kg (6.3%)	55 %	985
Grain	Weyermann - Carafa II	0.1 kg (1.7%)	70 %	837
Grain	Chocolate Malt (UK)	0.1 kg (1.7%)	73 %	887

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	20 min	5.6 %
Boil	Challenger	12 g	20 min	6 %
Boil	East Kent Goldings	20 g	10 min	5.6 %
Boil	Warrior	17 g	60 min	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Campden tablet	0.75 g	Mash	60 min
Water Agent	Calcium Chloride	9.49 g	Mash	60 min
Water Agent	Calcium Sulphate	6.32 g	Mash	60 min
Water Agent	Salt	6.32 g	Mash	60 min
Water Agent	Vitamin C	3 g	Mash	60 min
Fining	Super moss	1 g	Boil	10 min

## Notes

- Woda do zacierania 24 litry i do tego 1 campden tablet, calcium chloride 6.16g, calcium sulphate 4.1g I salt 4.1g.  
Woda do wysładzania 13 litrów i do tego 0.5 campden tablet, calcium chloride 3.33g, calcium sulphate 2.22g I salt 2.22g  
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