

## dry stout

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **29**
- SRM **28.9**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **67 C**, Time **80 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	2.7 kg (43.5%)	81 %	4
Grain	Weyermann - Pale Ale Malt	1.3 kg (21%)	85 %	6
Grain	Monachijski typ II 20-25 EBC Weyermann	1 kg (16.1%)	80 %	20
Grain	Jęczmień palony	0.3 kg (4.8%)	55 %	1150
Grain	orkiszowy czekoladowy	0.3 kg (4.8%)	--- %	1000
Adjunct	płatki jęczmienne	0.6 kg (9.7%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	60 g	60 min	4.6 %
Boil	Fugles UK	30 g	15 min	4.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	14.38 g	---
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