

12. al'a 5 > stout

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **55**
- SRM **12.5**
- 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 **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **68 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **23.4 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (84.2%)	81 %	4
Grain	Crystal Dark 420-480 Crisp	0.1 kg (2.1%)	74 %	450
Grain	Abbey Castle	0.1 kg (2.1%)	80 %	45
Grain	Specjal B 350	0.2 kg (4.2%)	68 %	350
Grain	Weyermann Specjal W	0.2 kg (4.2%)	68 %	300
Sugar	Dememera Sugar	0.15 kg (3.2%)	100 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	18 g	60 min	15.5 %
Boil	Mosaic	12 g	60 min	10 %
Boil	Mosaic	17 g	35 min	10 %
Aroma (end of boil)	Kent Goldings	23 g	5 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

Extras

Type	Name	Amount	Use for	Time
Flavor	ris	300 g	Bottling	---