

Fundamental Stout

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **32**
- SRM **36.5**
- 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 **80 min**
- Evaporation rate **12 %/h**
- Boil size **30.5 liter(s)**

Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **39 liter(s)**

Steps

- Temp **66 C**, Time **90 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **33 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **3.5 liter(s)** of **76C** water or to achieve **30.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (75%)	80 %	5
Grain	Płatki jęczmienne błyskawiczne	0.5 kg (8.3%)	85 %	3
Grain	Jęczmień palony	0.5 kg (8.3%)	55 %	985
Grain	Strzegom Karmel 600	0.35 kg (5.8%)	68 %	601
Grain	Weyermann - Dehusked Carafo III	0.15 kg (2.5%)	70 %	1024

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	33 g	60 min	9.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	120 ml	Danstar