

## #43 American Rye Stout

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **66**
- SRM **37**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **11.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **0 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1 kg (25.6%)	81 %	4
Grain	Żytni	1 kg (25.6%)	85 %	8
Grain	Wędzony bukiem Viking Malt	0.5 kg (12.8%)	82 %	10
Grain	Rye, Flaked	0.4 kg (10.3%)	78.3 %	4
Grain	Strzegom Czekoladowy jasny	0.3 kg (7.7%)	68 %	400
Grain	Carafa	0.3 kg (7.7%)	70 %	664
Grain	Jęczmień palony	0.1 kg (2.6%)	55 %	985
Grain	Żyto prażone	0.3 kg (7.7%)	65 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Centennial	30 g	0 min	10.5 %
Boil	Chinook	30 g	60 min	13 %
Boil	Chinook	30 g	10 min	13 %
Aroma (end of boil)	Chinook	40 g	0 min	13 %
Aroma (end of boil)	Centennial	30 g	0 min	10.5 %
Dry Hop	Citra	50 g	5 day(s)	12 %

Dry Hop	Simcoe	50 g	5 day(s)	13.2 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	10 g	Danstar