

## #43 American Rye Stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **69**
- SRM **39.4**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **48 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **36 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **39.3 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	7 kg (53.8%)	90 %	7
Grain	Weyermann - Rye Malt	2 kg (15.4%)	86 %	7
Grain	Weyermann - Caramel Rye Malt	1 kg (7.7%)	76 %	175
Grain	Weyermann - Chocolate Malt	0.5 kg (3.8%)	76 %	887
Grain	Żyto palone	1 kg (7.7%)	65 %	985
Grain	Jęczmień palony	0.5 kg (3.8%)	65 %	985
Adjunct	Płatki żytnie	1 kg (7.7%)	30 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Eureka!	30 g	60 min	18 %
Boil	Chinook	30 g	30 min	12 %
Boil	Eureka!	70 g	15 min	18 %
Boil	Chinook	70 g	5 min	12 %
Dry Hop	Eureka!	50 g	7 day(s)	18 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	300 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	10 g	Boil	15 min