

## #25 Hoppy Rye Ale

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **56**
- SRM **3.5**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **90 liter(s)**
- Trub loss **5 %**
- Size with trub loss **94.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **119 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **48 liter(s)**
- Total mash volume **64 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **48 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **87 liter(s)** of **76C** water or to achieve **119 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	7 kg (43.8%)	85 %	8
Grain	Viking Pilsner malt	6 kg (37.5%)	82 %	4
Grain	Płatki owsiane	1 kg (6.3%)	85 %	3
Grain	Viking Wheat Malt	2 kg (12.5%)	83 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	150 g	90 min	10.9 %
Boil	Cascade	50 g	30 min	6.9 %
Aroma (end of boil)	Citra	50 g	3 min	13.8 %
Dry Hop	Citra	100 g	5 day(s)	13.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	46 g	Fermentis