

# Rye Ale

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **16**
- SRM **4.7**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **5 %**
- Size with trub loss **63 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **75.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **48 liter(s)**
- Total mash volume **64 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **48 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **43.9 liter(s)** of **76C** water or to achieve **75.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	11 kg (68.8%)	82 %	4
Grain	Rye Malt	5 kg (31.3%)	63 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	60 min	10.5 %
Boil	Centennial	75 g	10 min	10.5 %
Whirlpool	Sorachi Ace	90 g	0 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	35 g	---