

# Rye IPA

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **63**
- SRM **8.5**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.86 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **73 C**, Time **1 min**
- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **1 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.4 kg (34.3%)	80 %	5
Grain	Viking Pilsner malt	2.4 kg (34.3%)	82 %	4
Grain	Rye Malt	1.1 kg (15.7%)	70 %	10
Grain	Viking Vienna Malt	0.8 kg (11.4%)	79 %	7
Grain	Strzegom Karmel 150	0.3 kg (4.3%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	14.7 %
Boil	Columbus/Tomahawk/Zeus	10 g	30 min	15.5 %
Boil	Centennial	10 g	30 min	10.5 %
Boil	Chinook	10 g	30 min	13 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	5 g	10 min	14.7 %
Aroma (end of boil)	Centennial	5 g	10 min	10.5 %
Aroma (end of boil)	Chinook	5 g	10 min	13 %
Whirlpool	Styrian Cardinal	20 g	5 min	8.7 %

Dry Hop	Styrian Cardinal	30 g	7 day(s)	8.7 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale