

# Hoppy rye apa

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **31**
- SRM **3.9**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **16.6 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **13.3 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	1.5 kg (36.1%)	80 %	5
Grain	Pilzniejszy	0.75 kg (18.1%)	81 %	4
Grain	Pszeniczny	1.2 kg (28.9%)	85 %	4
Grain	Żytni	0.5 kg (12%)	85 %	8
Grain	Carahell	0.2 kg (4.8%)	77 %	26

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	25 g	50 min	11.2 %
Dry Hop	Amarillo	50 g	14 day(s)	9.5 %
Dry Hop	Equanot	50 g	14 day(s)	12.5 %
Dry Hop	Galaxy	50 g	14 day(s)	16.5 %
Dry Hop	Polaris	50 g	14 day(s)	19.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11 g	Fermentis