

Galaxy Single Hop Rye Ale

- Gravity **12.4 BLG**
- ABV ---
- IBU **38**
- SRM **6.4**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **22.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **23.7 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **8 min**

Mash step by step

- Heat up **18.5 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **8 min** at **76C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (58.3%)	82 %	4
Grain	Viking Rye Malt	2 kg (38.8%)	63 %	9
Grain	Abbey Castle	0.15 kg (2.9%)	80 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	10 g	60 min	13.3 %
Boil	Galaxy	10 g	30 min	13.3 %
Boil	Galaxy	15 g	15 min	13.3 %
Boil	Galaxy	25 g	0 min	13.3 %
Dry Hop	Galaxy	40 g	4 day(s)	13.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Water Agent	Łuska ryżowa sterylizowana	100 g	Mash	0 min
Water Agent	Gips Piwowarski	4 g	Mash	60 min