

BlackColdRyeIPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **76**
- SRM **32.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **9.4 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **10.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **11.2 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **2.4 liter(s)** of **76C** water or to achieve **10.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (71.4%)	80 %	5
Grain	Viking Melanoidynowy	0.2 kg (7.1%)	75 %	60
Grain	Żytni	0.4 kg (14.3%)	85 %	8
Grain	Strzegom Barwiący	0.2 kg (7.1%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	18 g	30 min	10 %
Whirlpool	Centennial	16 g	30 min	10.5 %
Whirlpool	Citra	16 g	30 min	12 %
Whirlpool	Chinook	16 g	30 min	13 %
Dry Hop	Centennial	24 g	5 day(s)	10.5 %
Dry Hop	Citra	24 g	5 day(s)	12 %
Dry Hop	Chinook	24 g	5 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Novalager	Lager	Slant	500 ml	Lelelland

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min