

JET BLACK HEART

- Gravity **14 BLG**
- ABV ---
- IBU **30**
- SRM **28.1**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 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 **3.5 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20.6 liter(s)**

Steps

- Temp **65 C**, Time **75 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **75 min** at **65C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.75 kg (55.4%)	85 %	7
Grain	Briess - Wheat Malt, White	0.25 kg (5%)	85 %	5
Grain	Fawcett - Dark Crystal	0.19 kg (3.8%)	71 %	300
Grain	Brown Malt (British Chocolate)	0.38 kg (7.7%)	70 %	128
Grain	Briess - Black Malt	0.19 kg (3.8%)	55 %	985
Grain	Carafa	0.19 kg (3.8%)	70 %	664
Grain	Oats, Flaked	0.38 kg (7.7%)	80 %	2
Grain	Caramel/Crystal Malt - 120L	0.25 kg (5%)	72 %	150
Sugar	Milk Sugar (Lactose)	0.38 kg (7.7%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	11.5 %
Boil	Sorachi Ace	10 g	10 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
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US-05	Ale	Dry	11.5 g	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Water Agent	kreda	2 g	Mash	60 min
Fining	Mech Irlandzki	5 g	Boil	10 min