Jet Black Heart - Milk Stout

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **26**
- SRM **31.8**

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 **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

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

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **75 min** at **65C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3.5 kg *(61.4%)*	80 %	8
Grain	Weyermann pszeniczny jasny	0.3 kg *(5.3%)*	80 %	6
Grain	Fawcett - Dark Crystal	0.25 kg *(4.4%)*	71 %	300
Grain	Brown Malt (British Chocolate)	0.5 kg *(8.8%)*	70 %	128
Grain	Black (Patent) Malt	0.25 kg *(4.4%)*	55 %	985
Grain	Weyermann - Carafa I	0.25 kg *(4.4%)*	70 %	690
Grain	Oats, Flaked	0.4 kg *(7%)*	80 %	2
Grain	Fawcett - Crystal	0.25 kg *(4.4%)*	70 %	160

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	12.5 g	60 min	13.5 %
Boil	Sorachi Ace	10 g	30 min	10.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - American Ale II	Ale	Slant	300 ml	Wyeast Labs

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Extras

Type	Name	Amount	Use for	Time
Other	Laktoza	400 g	Boil	15 min