

Jet Black

- Gravity **15.4 BLG**
- ABV ---
- IBU **53**
- SRM **62.8**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **28.3 liter(s)**

Steps

- Temp **65 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **75 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3.44 kg (51%)	80.3 %	6
Grain	Fawcett - Pszeniczny Czekoladowy	0.31 kg (4.6%)	73 %	1001
Grain	Fawcett - Dark Crystal	0.24 kg (3.6%)	71 %	300
Grain	Brown Malt (British Chocolate)	0.47 kg (7%)	71.9 %	185
Grain	Black (Patent) Malt	0.24 kg (3.6%)	70 %	1100
Grain	Weyermann - Carafa I	0.24 kg (3.6%)	65 %	900
Grain	Fawcett - Pale Chocolate	0.31 kg (4.6%)	71 %	600
Grain	Crystal 150	0.31 kg (4.6%)	73.5 %	160
Grain	Oats, Flaked	0.47 kg (7%)	80 %	4
Grain	Acid Malt	0.25 kg (3.7%)	70 %	4.5
Sugar	Milk Sugar (Lactose)	0.47 kg (7%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	Magnum	30 g	60 min	11.5 %
Boil	Sorachi Ace	30 g	25 min	12.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	50 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	15 min
Other	Pożywka dla drożdży	3 g	Boil	10 min