

Brewdog Clone Black Heart

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **30**
- SRM **46.2**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **55 C**, Time **1 min**
- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Best	3 kg (59.1%)	80 %	6
Grain	Oats, Flaked	0.5 kg (9.8%)	80 %	2
Grain	Barley, Flaked	0.5 kg (9.8%)	70 %	4
Grain	Cara aroma (red)	0.3 kg (5.9%)	78 %	50
Grain	Carafa II Best	0.3 kg (5.9%)	65 %	1100
Grain	Chocolate Best	0.4 kg (7.9%)	75 %	900
Liquid Extract	sinamar	0.08 kg (1.6%)	--- %	8000

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	East Kent Goldings	20 g	60 min	5.7 %
Boil	East Kent Goldings	50 g	15 min	5.7 %
Aroma (end of boil)	East Kent Goldings	50 g	5 min	5.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1728 Scottish Ale	Ale	Slant	200 ml	Wyeast Labs

Extras

Type	Name	Amount	Use for	Time
Fining	WHIRLFLOC	1.2 g	Boil	10 min