

Brew Dog Hardcore IPA

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **124**
- SRM **8.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.6 liter(s)**
- Total mash volume **32.8 liter(s)**

Steps

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

Mash step by step

- Heat up **24.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **75 min** at **65C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	7.5 kg (91.5%)	81 %	6
Grain	Briess - 2 Row Carapils Malt	0.4 kg (4.9%)	75 %	3
Grain	Strzegom Karmel 150	0.3 kg (3.7%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	30 min	15.5 %
Boil	Centennial	20 g	30 min	10.5 %
Boil	Simcoe	20 g	30 min	13.2 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	5 min	15.5 %
Aroma (end of boil)	Centennial	20 g	5 min	10.5 %
Aroma (end of boil)	Simcoe	20 g	5 min	13.2 %
Dry Hop	Columbus/Tomahawk/Zeus	100 g	5 day(s)	15.5 %
Dry Hop	Centennial	100 g	5 day(s)	10.5 %
Dry Hop	Simcoe	100 g	5 day(s)	13.2 %
Dry Hop	Amarillo	100 g	5 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	20 g	Fermentis