

Hardcore IPA

- Gravity **20.5 BLG**
- ABV **9 %**
- IBU **126**
- SRM **8.3**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **7.3 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	maris otter	6 kg (89.6%)	85 %	7
Grain	Weyermann - Carapils	0.4 kg (6%)	78 %	4
Grain	Weyermann - Caraamber	0.3 kg (4.5%)	75 %	65

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Boil	Centennial	30 g	15 min	10.5 %
Boil	Simcoe	30 g	15 min	13.2 %
Boil	Columbus/Tomahawk/Zeus	30 g	10 min	15.5 %
Boil	Centennial	30 g	10 min	10.5 %
Boil	Simcoe	30 g	5 min	13.2 %
Boil	Columbus/Tomahawk/Zeus	30 g	5 min	15.5 %
Aroma (end of boil)	Centennial	30 g	0 min	10.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	30 g	0 min	15.5 %
Dry Hop	Centennial	15 g	14 day(s)	10.5 %
Dry Hop	Columbus/Tomahawk/Zeus	15 g	14 day(s)	15.5 %

Dry Hop	Simcoe	15 g	14 day(s)	13.2 %
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Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	400 ml	Fermentis