

Hardcore IPA 20 BLG

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **126**
- SRM **9.6**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **15.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (85.1%)	85 %	7
Grain	Weyermann - Carapils	0.5 kg (10.6%)	78 %	4
Grain	Weyermann Caramunich 3	0.2 kg (4.3%)	76 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Aroma (end of boil)	Centennial	20 g	15 min	10.5 %
Aroma (end of boil)	Simcoe	20 g	15 min	13.2 %
Aroma (end of boil)	Centennial	20 g	10 min	10.5 %
Aroma (end of boil)	Simcoe	30 g	5 min	13.2 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	5 min	15.5 %
Aroma (end of boil)	Centennial	30 g	0 min	10.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	0 min	15.5 %

Dry Hop	Centennial	20 g	14 day(s)	10.5 %
Dry Hop	Columbus/Tomahawk/Zeus	20 g	14 day(s)	15.5 %
Dry Hop	Simcoe	10 g	14 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis