

Black IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **78**
- SRM **30.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **29.8 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **75 C**, Time **15 min**

Mash step by step

- Heat up **22.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **15 min** at **75C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzniejszy	5.85 kg (78.5%)	80 %	4
Grain	Caramel/Crystal Malt - 10L	0.5 kg (6.7%)	75 %	22
Grain	Weyermann - Carared	0.25 kg (3.4%)	75 %	45
Grain	Weyermann - Carapils	0.25 kg (3.4%)	78 %	4
Grain	Weyermann - Carafa II	0.6 kg (8.1%)	70 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	50 min	15.1 %
Boil	Warrior	15 g	45 min	15.1 %
Boil	Centennial	15 g	30 min	9.7 %
Boil	Cascade	15 g	30 min	6 %
Boil	Centennial	15 g	10 min	9.7 %
Boil	Cascade	15 g	10 min	6 %
Boil	Centennial	10 g	5 min	9.7 %
Boil	Cascade	10 g	5 min	6 %

Aroma (end of boil)	Centennial	10 g	0 min	9.7 %
Aroma (end of boil)	Cascade	10 g	0 min	6 %
Whirlpool	Centennial	10 g	0 min	9.7 %
Whirlpool	Cascade	10 g	0 min	6 %
Whirlpool	Citra	30 g	0 min	13.8 %
Dry Hop	Centennial	30 g	4 day(s)	9.7 %
Dry Hop	Cascade	30 g	4 day(s)	6 %
Dry Hop	Citra	60 g	4 day(s)	13.8 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	1.25 g	Boil	15 min