

Black IPA

- Gravity **15.2 BLG**
- ABV ---
- IBU **61**
- SRM **36.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.4 kg (68.8%)	80 %	4
Grain	Strzegom Karmel 30	0.5 kg (7.8%)	75 %	30
Grain	Strzegom Czekoladowy ciemny	0.4 kg (6.3%)	68 %	1200
Grain	Strzegom Pilzneński	1 kg (15.6%)	80 %	4
Grain	Caraaroma	0.1 kg (1.6%)	78 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Rakau (NZ)	20 g	60 min	10.5 %
Boil	Centennial	15 g	20 min	10.5 %
Boil	Simcoe	15 g	20 min	13.2 %
Boil	Rakau (NZ)	20 g	20 min	10.5 %
Whirlpool	Centennial	15 g	0 min	10.5 %
Whirlpool	Simcoe	15 g	0 min	13.2 %
Whirlpool	Rakau (NZ)	20 g	0 min	10.5 %
Dry Hop	Centennial	20 g	4 day(s)	10.5 %

Dry Hop	Simcoe	20 g	4 day(s)	13.2 %
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