

#1 Black Hop Down

- Gravity **17.8 BLG**
- ABV ---
- IBU **93**
- SRM **40**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

Steps

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

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.5 kg (51.9%)	79 %	7
Grain	Weyermann - Rye Malt	0.5 kg (7.4%)	81 %	8
Grain	Special B Malt	0.25 kg (3.7%)	65.2 %	315
Grain	Carafa II	0.25 kg (3.7%)	65 %	1000
Grain	Weyermann - Chocolate Rye	0.25 kg (3.7%)	65 %	700
Grain	Weyermann - Chocolate Wheat	0.5 kg (7.4%)	74 %	788
Grain	Strzegom Monachijski typ II	1 kg (14.8%)	79 %	22
Grain	weyermann Carapils	0.5 kg (7.4%)	75 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	magnum	40 g	60 min	13.5 %
Boil	Citra	30 g	30 min	13.5 %
Boil	Equinox	50 g	5 min	13.9 %
Dry Hop	Equinox	50 g	7 day(s)	13.9 %

Yeasts

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