

Back in Black

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **38**
- SRM **25.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **55 min**
- Evaporation rate **10 %/h**
- Boil size **23.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15.1 liter(s)**
- Total mash volume **21.1 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.8 kg (79.6%)	85 %	7
Grain	Munich Malt	0.55 kg (9.1%)	80 %	18
Grain	Słód Caramunich Typ II Weyermann	0.34 kg (5.6%)	73 %	120
Grain	Weyermann - Carafa III	0.34 kg (5.6%)	70 %	1024

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	28 g	55 min	14.5 %
Aroma (end of boil)	Centennial	57 g	0 min	7.8 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	35 g	0 min	14.5 %
Dry Hop	Centennial	57 g	5 day(s)	7.8 %
Dry Hop	Chinook	57 g	5 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	300 ml	Safale