

Black IPA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **65**
- SRM **28.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **4 %**
- Size with trub loss **25.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **28.6 liter(s)**

Steps

- Temp **66 C**, Time **90 min**

Mash step by step

- Heat up **22.6 liter(s)** of strike water to **72.1C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **30.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (80%)	81 %	4
Grain	Strzegom Karmel 150	0.15 kg (2.4%)	75 %	150
Grain	Carafa II specjal	0.5 kg (8%)	65 %	1200
Grain	Biscuit Malt	0.3 kg (4.8%)	79 %	45
Sugar	Brown Sugar, Light	0.3 kg (4.8%)	100 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	60 g	60 min	8.8 %
Boil	Cascade	25 g	45 min	6.7 %
Boil	Fuggles	25 g	15 min	6.1 %
Boil	Cascade	25 g	0 min	6.7 %
Dry Hop	Cascade	50 g	4 day(s)	6.7 %
Dry Hop	Fuggles	25 g	4 day(s)	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	200 ml	Fermentum Mobile