Black IPA

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **41**
- SRM **32.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **16.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **21.7 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **71.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **3.1 liter(s)** of **76C** water or to achieve **16.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.7 kg *(39.2%)*	81 %	4
Grain	Castle Pale Ale	1.7 kg *(39.2%)*	80 %	8
Grain	Monachijski	0.4 kg *(9.2%)*	80 %	16
Grain	Weyermann - Carafa III	0.17 kg *(3.9%)*	70 %	1024
Grain	Caramel/Crystal Malt - 10L	0.17 kg *(3.9%)*	75 %	20
Grain	Jęczmień palony	0.2 kg *(4.6%)*	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	60 min	13.2 %
Boil	Simcoe	30 g	10 min	13.2 %
Whirlpool	Simcoe	30 g	0 min	13.2 %
Dry Hop	Simcoe	60 g	3 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Wyeast - American Ale	Ale	Liquid	1000 ml	Wyeast Labs