

session Black IPA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **72**
- SRM **31.6**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.5 liter(s)**
- Total mash volume **12.6 liter(s)**

Steps

- Temp **65 C**, Time **65 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **9.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **65 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Heidelberg	2.3 kg (69.7%)	80.5 %	3
Grain	Caramunich® typ I	0.2 kg (6.1%)	73 %	80
Grain	Płatki owsiane	0.2 kg (6.1%)	60 %	3
Grain	Pszeniczny	0.2 kg (6.1%)	85 %	4
Grain	Carafa special III	0.25 kg (7.6%)	70 %	1400
Sugar	cukier	0.15 kg (4.5%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	12.8 %
Boil	Simcoe	15 g	15 min	12.9 %
Boil	idaho 7	15 g	15 min	13.1 %
Aroma (end of boil)	Simcoe	20 g	0 min	12.9 %
Whirlpool	Simcoe Cryo	15 g	15 min	1 %
Whirlpool	Idaho 7	35 g	15 min	1 %

Yeasts

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

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	70 ml	White Labs

Extras

Type	Name	Amount	Use for	Time
Fining	whirlflock	1 g	Boil	10 min