

Double Black IPA

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **99**
- SRM **29**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **31.4 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.4 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (55.3%)	80 %	4
Grain	Oats, Flaked	1.5 kg (16.6%)	80 %	2
Grain	Maris Otter Crisp	1.2 kg (13.3%)	83 %	6
Grain	Castlemalting - Cara Clair	0.65 kg (7.2%)	78 %	4
Grain	Abbey Castle	0.325 kg (3.6%)	80 %	45
Grain	Monachijski	0.3 kg (3.3%)	80 %	16
Liquid Extract	Sinamar	0.06 kg (0.7%)	1 %	8600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Książęcy	100 g	60 min	7.2 %
Boil	Książęcy	60 g	20 min	7.2 %
Whirlpool	Książęcy	100 g	20 min	7.2 %
Dry Hop	Książęcy	300 g	3 day(s)	7.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
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WLP029 - German Ale/Kölsch Yeast	Ale	Slant	250 ml	White Labs
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Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCl ₂	7 g	Mash	60 min
Water Agent	Lactic Acid	7 g	Mash	60 min
Fining	Whirlfloc-T	2.5 g	Boil	10 min