

MAREK BLACK IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **48**
- SRM **25.7**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (73.5%)	80 %	6
Grain	Pszeniczny	1 kg (14.7%)	85 %	4
Grain	Pilznieński	0.5 kg (7.4%)	81 %	4
Grain	Strzegom Barwiący	0.3 kg (4.4%)	68 %	1600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	10 g	50 min	16.2 %
Boil	Galaxy	10 g	40 min	16.2 %
Boil	Galaxy	10 g	30 min	16.2 %
Aroma (end of boil)	Cascade	30 g	5 min	6.6 %
Aroma (end of boil)	Citra	30 g	5 min	13.1 %
Dry Hop	Citra	70 g	3 day(s)	13.1 %
Dry Hop	Amarillo	30 g	3 day(s)	8.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Slant	250 ml	Fermentis
Przeczyszczona 1l .				