

## BLACK IPA 14 Blg # 53

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **70**
- SRM **29.3**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (83.3%)	85 %	7
Grain	Czekoladowy Castlemalting	0.4 kg (6.7%)	--- %	900
Grain	Słód Caramunich Typ II Weyermann	0.4 kg (6.7%)	73 %	120
Grain	Carafa II	0.2 kg (3.3%)	70 %	812

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	30 g	60 min	8.3 %
Boil	Oktawia	45 g	45 min	9 %
Boil	Puławski	15 g	45 min	8.9 %
Aroma (end of boil)	Izabella	58 g	0 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	300 ml	Safale