

## # 41 Black IPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **69**
- SRM **33.1**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.1 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **70C**
- Keep mash **0 min** at **78C**
- Sparge using **13.3 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 (76.6%)	80 %	4
Grain	Strzegom Pale Ale	0.5 kg (7.7%)	79 %	6
Grain	Carafa III	0.5 kg (7.7%)	70 %	1034
Grain	Biscuit Malt	0.25 kg (3.8%)	79 %	45
Grain	Strzegom Barwiący	0.1 kg (1.5%)	68 %	1300
Grain	Weyermann - Acidulated Malt	0.1 kg (1.5%)	80 %	6
Grain	Strzegom Karmel 150	0.08 kg (1.2%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sorachi Ace	25 g	60 min	12.5 %
Boil	Sorachi Ace	25 g	45 min	12.5 %
Boil	Sorachi Ace	25 g	15 min	12.5 %
Boil	Sorachi Ace	25 g	0 min	12.5 %
Dry Hop	Sorachi Ace	50 g	5 day(s)	12.5 %
Dry Hop	Sorachi Ace	50 g	2 day(s)	12.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	300 ml	---

## Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	0.5 g	Boil	10 min
Other	witamina A	4 g	Bottling	---
Water Agent	gips	4 g	Mash	60 min