

## #106 Black IPA SH Citra

- Gravity **16 BLG**
- ABV ---
- IBU **72**
- SRM **34.8**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **54.4 liter(s)**

### Mash information

- Mash efficiency **93 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.1 liter(s)**
- Total mash volume **42.8 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **66 C**, Time **60 min**
- Temp **5 C**, Time **78 min**

### Mash step by step

- Heat up **32.1 liter(s)** of strike water to **2.5C**
- Add grains
- Keep mash **78 min** at **5C**
- Keep mash **10 min** at **50C**
- Keep mash **60 min** at **66C**
- Sparge using **33 liter(s)** of **76C** water or to achieve **54.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	7.6 kg (71%)	81 %	4
Grain	Pszeniczny	1 kg (9.3%)	85 %	4
Grain	Strzegom Wiedeński	1 kg (9.3%)	79 %	10
Grain	Carafa III Special	0.8 kg (7.5%)	70 %	1034
Grain	Fawcett - Crystal Rye	0.3 kg (2.8%)	70 %	160

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	120 g	60 min	10.6 %
Aroma (end of boil)	Citra	10 g	15 min	13.6 %
Aroma (end of boil)	Citra	20 g	10 min	13.6 %
Aroma (end of boil)	Citra	40 g	5 min	13.6 %
Aroma (end of boil)	Citra	80 g	0 min	13.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM50 Kłosy Kansas	Wheat	Slant	500 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	pożywka	10 g	Boil	10 min
Fining	mech irlandzki	10 g	Boil	10 min