

- Gravity **17.1 BLG**
- ABV ---
- IBU **112**
- SRM **38.9**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (55.6%)	80 %	4
Grain	Strzegom Monachijski typ II	1 kg (13.9%)	79 %	22
Grain	Strzegom pszeniczny	1 kg (13.9%)	81 %	6
Grain	Strzegom Karmel 150	0.3 kg (4.2%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.8%)	68 %	1200
Grain	Strzegom pszenica prażona	0.2 kg (2.8%)	70 %	1000
Sugar	cukier	0.5 kg (6.9%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	50 g	60 min	13.5 %
Boil	Columbus/Tomahawk/Zeus	25 g	30 min	15.5 %
Boil	Chinook	25 g	20 min	13 %
Boil	Centennial	25 g	5 min	10.5 %
Whirlpool	Citra	25 g	0 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Slant	20 ml	Safale