

- Gravity **15 BLG**
- ABV ---
- IBU **120**
- SRM **47.4**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **33.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **29 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **21.8 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **33.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (69%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (13.8%)	79 %	10
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (6.9%)	73 %	1001
Grain	Strzegom Czekoladowy ciemny	0.25 kg (3.4%)	68 %	1200
Grain	Strzegom Monachijski typ I	0.5 kg (6.9%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	40 g	60 min	12 %
Boil	Cascade	40 g	60 min	6 %
Aroma (end of boil)	Citra	40 g	30 min	12 %
Aroma (end of boil)	Cascade	40 g	30 min	6 %
Whirlpool	Equinox	20 g	0 min	13.1 %
Dry Hop	Citra	50 g	5 day(s)	12 %
First Wort	Magnum	20 g	70 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis