

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **63**
- SRM **44.9**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (40%)	79 %	6
Grain	Strzegom Pilzneński	2 kg (26.7%)	80 %	4
Grain	Weyermann pszeniczny jasny	0.5 kg (6.7%)	80 %	4
Grain	Strzegom Karmel 150	0.5 kg (6.7%)	75 %	150
Grain	Black Castle Malting	1 kg (13.3%)	65 %	1200
Grain	Płatki owsiane	0.5 kg (6.7%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	25 g	60 min	13.6 %
Boil	Citra	15 g	60 min	11.6 %
Boil	Simcoe	25 g	15 min	13.6 %
Boil	Citra	15 g	15 min	11.6 %
Dry Hop	cashmere	50 g	18 day(s)	8.3 %
Dry Hop	Amarillo	50 g	18 day(s)	7.3 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Safale US-05	Ale	Dry	11.5 g	safale