

# Black IPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **125**
- SRM **79**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **17.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.5 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.07 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.5 liter(s)**

## Steps

- Temp **63 C**, Time **50 min**
- Temp **62 C**, Time **10 min**
- Temp **78 C**, Time **78 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **68.8C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **50 min** at **63C**
- Keep mash **78 min** at **78C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **20.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (76.9%)	79 %	6
Grain	Jęczmień palony	0.5 kg (7.7%)	70 %	1000
Grain	Słód Carafa® typ III	1 kg (15.4%)	65 %	1400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pacyfic Gem	50 g	60 min	15.3 %
Boil	Sybilla	20 g	30 min	6 %
Boil	Syblila	20 g	20 min	6 %
Boil	Pacific Gem	10 g	10 min	15.3 %
Boil	Sybilla	10 g	10 min	6 %
Boil	Pacific Gem	20 g	5 min	15.3 %
Boil	Pacific Gem	20 g	0 min	15.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis