

# Black IPA Centennial

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **79**
- SRM **27.7**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **13.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **64 C**, Time **90 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **13.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilznieński	3 kg (80%)	80 %	4
Grain	Weyermann - Dehusked Carafa III	0.25 kg (6.7%)	70 %	1024
Grain	Abbey Castle	0.125 kg (3.3%)	80 %	45
Grain	Carahell	0.125 kg (3.3%)	77 %	26
Sugar	Brown Sugar, Light	0.25 kg (6.7%)	100 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	25 g	60 min	8.5 %
Boil	Centennial	25 g	30 min	8.5 %
Aroma (end of boil)	Centennial	25 g	15 min	8.5 %
Aroma (end of boil)	Centennial	25 g	0 min	9.7 %
Dry Hop	Centennial	50 g	4 day(s)	9.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	500 ml	Fermentis