

# BLACK IPA 17 BLG # 66

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **70**
- SRM **30**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28.8 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5.5 kg (85.9%)	85 %	7
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.7%)	68 %	1000
Grain	Słód Caramunich Typ II Weyermann	0.4 kg (6.3%)	73 %	110
Grain	Weyermann - Carafa II	0.2 kg (3.1%)	70 %	900

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia PH	45 g	45 min	8.3 %
Boil	Zula PH	30 g	60 min	8.3 %
Boil	Pałacowy PH	20 g	45 min	7.7 %
Aroma (end of boil)	Izabella PH	50 g	0 min	6.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	---