

# Imperial black IPA

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **77**
- SRM **42.4**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **30.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **30.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **22.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (39.2%)	80 %	5
Grain	Pilzneński	3 kg (39.2%)	81 %	4
Grain	Cara Gold Castlemalting	0.35 kg (4.6%)	78 %	120
Grain	Strzegom Czekoladowy 400	0.5 kg (6.5%)	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.3 kg (3.9%)	68 %	1200
Grain	Carafa III	0.5 kg (6.5%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Columbus/Tomahawk/Zeus	15 g	45 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	15 g	20 min	15.5 %
Boil	Summit	30 g	10 min	17 %
Aroma (end of boil)	Summit	30 g	0 min	17 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	30 g	0 min	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM53 Voss kveik	Ale	Slant	250 ml	FM
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## Notes

- black ipa a'la awaria zasilania 16blg  
woda 3:1 sód  
zasyp: pale ale 89,5%, pale chocolate 6%, carafa 2 special 1,5%, carafa 3 special 1,5%, black 1,5%  
zacieranie: wsep 68, przerwa 66-65 1h  
chmiel: columbus 15g 45min, simcoe 35g + columbus 35g 1min  
na zimno: simcoe 50-70g, columbus 50-70g  
drożdże us05  
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