

# Black IPA Wariacja na słodko

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **20**
- SRM **34.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 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 **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.22 kg (42.9%)	80 %	5
Grain	Viking Pilsner malt	1.84 kg (24.5%)	82 %	4
Grain	Viking Wheat Malt	1.38 kg (18.4%)	83 %	5
Grain	Strzegom Karmel 600	0.46 kg (6.1%)	68 %	800
Grain	Strzegom Karmel 600	0.46 kg (6.1%)	68 %	600
Grain	Jęczmień palony	0.1 kg (1.3%)	55 %	1000
Grain	Strzegom Barwiący	0.05 kg (0.7%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Amarillo	23 g	15 min	9.5 %
Aroma (end of boil)	Cascade	43.7 g	15 min	6 %
Dry Hop	Amarillo	50 g	6 day(s)	9.5 %
Dry Hop	Cascade	50 g	6 day(s)	6 %
Dry Hop	Ekuanot	20 g	6 day(s)	14 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M12 Voss Kveik	Ale	Dry	11 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Spice	Curacao	20 g	Secondary	6 day(s)
Other	Pulpa z mango	800 g	Secondary	6 day(s)
Flavor	Trawa cytrynowa	40 g	Secondary	6 day(s)