

# FOREST BLACK IPA

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **95**
- SRM **33.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **65 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (61.5%)	80 %	5
Grain	Viking Vienna Malt	1 kg (15.4%)	79 %	7
Grain	Viking Wheat Malt	0.5 kg (7.7%)	83 %	5
Grain	Weyermann - Carapils	0.5 kg (7.7%)	78 %	4
Grain	Weyermann - Dehusked Carafa III	0.5 kg (7.7%)	70 %	1024
na wyśładzanie				

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	40 g	70 min	10 %
Gotować 75 min, by lekko przyciemnić brzeczkę				
Aroma (end of boil)	Mosaic	15 g	10 min	12.5 %
Aroma (end of boil)	Citra	15 g	10 min	12.9 %
Boil	Sabro	15 g	10 min	14.8 %
Whirlpool	Mosaic	15 g	15 min	12.5 %
Hop stand w 70-75°C				
Whirlpool	Citra	15 g	15 min	12.9 %

Hop stand w 70-75°C				
Whirlpool	Sabro	15 g	15 min	14.8 %
mandarynka, kokos, owoce tropikalne, pestki z owoców pestkowych, cedr, mięta i śmietana.				
Whirlpool	Oktawia	30 g	15 min	7.1 %
Hop stand w 70-75°C				
Dry Hop	Enigma (AUS)	30 g	3 day(s)	16.9 %
winogrona, czerwona porzeczka, melon cukrowy, owoce tropikalne, maliny				
Dry Hop	Galaxy	30 g	3 day(s)	13.6 %
owoce tropikalne, marakuja, cytrusy, brzoskwinia, mango, czarna porzeczka, jeżyny, jagody, anyż.				

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis
?? S 04				

## Extras

Type	Name	Amount	Use for	Time
Flavor	Pędy sosny, świerku	60 g	Boil	20 min
40/20				
Flavor	Pędy sosny, świerku	60 g	Boil	5 min
40/20				
Water Agent	gips	3 g	Mash	105 min
Water Agent	kreda	2 g	Mash	105 min

## Notes

- HOPRATE 14,5/litr  
Nov 24, 2020, 12:59 AM