

# Mafiozo- Black IPA z Ananasem

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **33**
- SRM **34.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **8 %**
- Size with trub loss **16.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **74C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.5 kg (62.5%)	85 %	7
Grain	Płatki jęczmienne	1 kg (25%)	80 %	4
Grain	Carafa III	0.5 kg (12.5%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	15 g	10 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	35 g	0 min	15.5 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Spice	Skórka Słodkiej pomarańczy	40 g	Boil	10 min

Other	Ananas	1000 g	Secondary	7 day(s)
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## Notes

- Na słodko wyższa temperatura na wytrwano niższa  
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