

# Żytnia APA z Earl Grey

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **44**
- SRM **6.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 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 **46 C**, Time **20 min**
- Temp **66 C**, Time **60 min**
- Temp **79 C**, Time **15 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **50.3C**
- Add grains
- Keep mash **20 min** at **46C**
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **79C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (66.7%)	80 %	5
Grain	Rye, Flaked	0.5 kg (6.7%)	78.3 %	4
Grain	Rye Malt	2 kg (26.7%)	63 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	25 g	60 min	6 %
Boil	Cascade	25 g	30 min	6 %
Boil	Citra	25 g	15 min	12 %
Boil	Citra	25 g	5 min	12 %
Dry Hop	Citra	50 g	4 day(s)	12 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Spice	Earl Grey	100 g	Secondary	1 day(s)
Spice	Trawa cytrynowa	30 g	Boil	10 min
Fining	Whirlfloc	0.5 g	Boil	10 min

## Notes

- 45 stopni - 20'
- 66 stopni - 60'
- 78 stopni - 15'

Filtracja na łusce ryżowej 200 g

CC 2 dni po chmieleniu na zimno  
*Jan 26, 2021, 1:38 PM*