

# 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*