

# APAratka

---

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **52 C**, Time **5 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

| Type  | Name                         | Amount        | Yield | EBC |
|-------|------------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt         | 4 kg (74.1%)  | 80 %  | 5   |
| Grain | Briess - 2 Row Carapils Malt | 0.5 kg (9.3%) | 75 %  | 3   |
| Grain | Pszeniczny                   | 0.4 kg (7.4%) | 85 %  | 4   |
| Grain | Oats, Flaked                 | 0.5 kg (9.3%) | 80 %  | 2   |

## Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Aroma (end of boil) | Amarillo | 10 g   | 20 min   | 9.5 %      |
| Aroma (end of boil) | Cascade  | 10 g   | 20 min   | 6 %        |
| Aroma (end of boil) | Citra    | 10 g   | 20 min   | 13.7 %     |
| Aroma (end of boil) | Amarillo | 10 g   | 10 min   | 9.5 %      |
| Aroma (end of boil) | Cascade  | 10 g   | 10 min   | 6 %        |
| Aroma (end of boil) | Citra    | 10 g   | 10 min   | 13.7 %     |
| Whirlpool           | Cascade  | 30 g   | 0 min    | 6 %        |
| 30min 80°C          |          |        |          |            |
| Dry Hop             | Amarillo | 30 g   | 3 day(s) | 9.5 %      |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 200 ml | ---        |

## Extras

| Type        | Name                          | Amount | Use for   | Time     |
|-------------|-------------------------------|--------|-----------|----------|
| Water Agent | gips piwowarski               | 2 g    | Mash      | 0 min    |
| Fining      | whirlfloc                     | 2 g    | Boil      | 10 min   |
| Flavor      | kandyzowane skórki pomarańczy | 15 g   | Secondary | 3 day(s) |
| Flavor      | kandyzowane skórki grejpfruta | 15 g   | Secondary | 3 day(s) |