

# Wakacyjna APA

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- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **50**
- SRM **3.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name       | Amount        | Yield | EBC |
|-------|------------|---------------|-------|-----|
| Grain | Pilzneński | 4 kg (90.9%)  | 81 %  | 4   |
| Grain | Pszeniczny | 0.4 kg (9.1%) | 85 %  | 4   |

## Hops

| Use for | Name                | Amount | Time   | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil    | Książęcy            | 20 g   | 50 min | 7.2 %      |
| Boil    | rody hodowlane 2/20 | 30 g   | 20 min | 9.3 %      |
| Boil    | Książęcy            | 35 g   | 10 min | 7.2 %      |
| Boil    | rody hodowlane 2/20 | 40 g   | 5 min  | 9.3 %      |

## Yeasts

| Name                       | Type | Form  | Amount | Laboratory |
|----------------------------|------|-------|--------|------------|
| WLP518 - Opshaug Kveik Ale | Ale  | Slant | 80 ml  | White Labs |