

# APA wędzona

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **48**
- SRM **5.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **34 liter(s)**

## Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **50 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **34 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 5 kg (75.8%)   | 85 %  | 7   |
| Grain | słód krótki               | 0.25 kg (3.8%) | 85 %  | 5   |
| Grain | Słód Wędzony Steinbach    | 0.25 kg (3.8%) | 80 %  | 5   |
| Grain | Monachijski               | 0.5 kg (7.6%)  | 80 %  | 16  |
| Grain | Płatki owsiane            | 0.6 kg (9.1%)  | 85 %  | 3   |

## Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 10 g   | 60 min   | 15.5 %     |
| Boil                | Citra                  | 33 g   | 15 min   | 12 %       |
| Boil                | Centennial             | 30 g   | 10 min   | 10.5 %     |
| Boil                | Centennial             | 45 g   | 5 min    | 10.5 %     |
| Whirlpool           | Centennial             | 45 g   | 0 min    | 10.5 %     |
| Aroma (end of boil) | Centennial             | 45 g   | 0 min    | 10.5 %     |
| Dry Hop             | Cascade                | 50 g   | 3 day(s) | 6 %        |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |

## Notes

- blg początkowe 12 odfermentowało do 2  
*Apr 17, 2018, 1:59 PM*