

# A I P A Wolności

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **36**
- SRM **4.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **3 %**
- Size with trub loss **63.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **72.5 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **49.5 liter(s)**
- Total mash volume **66 liter(s)**

## Steps

- Temp **77 C**, Time **5 min**
- Temp **66 C**, Time **70 min**

## Mash step by step

- Heat up **49.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **5 min** at **77C**
- Sparge using **39.5 liter(s)** of **76C** water or to achieve **72.5 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 12 kg (72.7%) | 80 %  | 5   |
| Grain | Viking Wheat Malt    | 2 kg (12.1%)  | 83 %  | 5   |
| Grain | Weyermann - Carared  | 0.5 kg (3%)   | 75 %  | 45  |
| Grain | Płatki pszeniczne    | 1 kg (6.1%)   | 85 %  | 3   |
| Grain | Płatki owsiane       | 1 kg (6.1%)   | 60 %  | 3   |

## Hops

| Use for   | Name              | Amount | Time   | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil      | lunga             | 100 g  | 1 min  | 9.6 %      |
| Whirlpool | Mandarina Bavaria | 200 g  | 60 min | 10 %       |