

## WARKA #5

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **76**
- SRM **5.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.2 liter(s)**

### Steps

- Temp **74 C**, Time **20 min**
- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **74C**
- Keep mash **0 min** at **78C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

| Type  | Name                                      | Amount         | Yield | EBC |
|-------|---|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt                    | 1.7 kg (47.2%) | 80 %  | 7   |
| Grain | Słód Pilsner®<br>2,5-4,5 EBC<br>Weyermann | 1.7 kg (47.2%) | 80 %  | 7   |
| Grain | Płatki owsiane                            | 0.2 kg (5.6%)  | 85 %  | 3   |

### Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Lomik     | 20 g   | 60 min | 4.6 %      |
| Boil    | Sybilla   | 20 g   | 60 min | 6 %        |
| Boil    | Tradition | 20 g   | 60 min | 5.2 %      |
| Boil    | Lomik     | 20 g   | 15 min | 4.6 %      |
| Boil    | Sybilla   | 20 g   | 15 min | 6 %        |
| Boil    | Tradition | 20 g   | 15 min | 5.2 %      |

### Yeasts

| Name | Type  | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| wb   | Wheat | Dry  | 11.5 g | ---        |

## Extras

| Type   | Name                | Amount | Use for | Time  |
|--------|---------------------|--------|---------|-------|
| Flavor | skórka z pomarańczy | 12 g   | Boil    | 5 min |
| Spice  | curacao             | 12 g   | Boil    | 5 min |
| Spice  | kmin rzymski        | 1 g    | Boil    | 5 min |
| Spice  | kolendra            | 3 g    | Boil    | 5 min |