

WAWER IPA

- Gravity **15 BLG**
- ABV ---
- IBU **43**
- SRM **4.7**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.9 liter(s)**

Steps

- Temp **62 C**, Time **10 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **45 min** at **66C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------|---------------|-------|-----|
| Grain | Pilzneński | 5.5 kg (100%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Magnum | 20 g | 45 min | 13.5 % |
| Aroma (end of boil) | Magnum | 5 g | 10 min | 13.5 % |
| Boil | Marynka | 5 g | 45 min | 10 % |
| Aroma (end of boil) | Marynka | 20 g | 10 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |