

# SUMMER ALE wg Twój Browar

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **39**
- SRM **5.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pilzneński               | 2.5 kg (46.3%) | 81 %  | 4   |
| Grain | Strzegom Wiedeński       | 2 kg (37%)     | 79 %  | 10  |
| Grain | Karmelowy Jasny<br>30EBC | 0.5 kg (9.3%)  | 75 %  | 30  |
| Grain | Pszeniczny               | 0.4 kg (7.4%)  | 85 %  | 4   |

## Hops

| Use for | Name     | Amount | Time     | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil    | Galaxy   | 10 g   | 60 min   | 14.5 %     |
| Boil    | Motueka  | 25 g   | 15 min   | 8 %        |
| Boil    | Amarillo | 25 g   | 10 min   | 8.9 %      |
| Boil    | Galaxy   | 25 g   | 5 min    | 14.5 %     |
| Dry Hop | Citra    | 50 g   | 5 day(s) | 12 %       |

## Yeasts

| Name                                 | Type | Form | Amount | Laboratory      |
|--------------------------------------|------|------|--------|-----------------|
| Mangrove Jack's<br>M44 US West Coast | Ale  | Dry  | 11 g   | Mangrove Jack's |

## Extras

| Type   | Name | Amount | Use for | Time   |
|--------|------|--------|---------|--------|
| Fining | mech | 5 g    | Boil    | 15 min |