

# kwaz

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **15**
- SRM **3.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **10.8 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **8.4 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield  | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 1.8 kg (75%)   | 80.5 % | 4   |
| Grain | Pszeniczny             | 0.4 kg (16.7%) | 85 %   | 4   |
| Grain | Oats, Flaked           | 0.2 kg (8.3%)  | 80 %   | 2   |

## Hops

| Use for   | Name    | Amount | Time     | Alpha acid |
|-----------|---------|--------|----------|------------|
| Whirlpool | Mosaic  | 25 g   | 5 min    | 12.8 %     |
| Whirlpool | Sabro   | 25 g   | 5 min    | 15.8 %     |
| Dry Hop   | Motueka | 50 g   | 5 day(s) | 6 %        |
| Dry Hop   | Sabro   | 25 g   | 5 day(s) | 15.8 %     |
| Dry Hop   | Mosaic  | 25 g   | 5 day(s) | 12.8 %     |

## Yeasts

| Name          | Type | Form  | Amount | Laboratory |
|---------------|------|-------|--------|------------|
| lactobacillus | Ale  | Dry   | 5 g    | ---        |
| US-05         | Ale  | Slant | 150 ml | ---        |