

# BELGIAN PALE ALE V3 #76

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **31**
- SRM **6.7**
- Style **Belgian Pale Ale**

## Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **81.8 %**
- Liquor-to-grist ratio **4.37 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **24.6 liter(s)**

## Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **75 C**, Time **7 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **7 min** at **75C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount          | Yield  | EBC |
|-------|------------------------|-----------------|--------|-----|
| Grain | MEP - pale ale         | 2.87 kg (62.7%) | 82.1 % | 5.5 |
| Grain | Viking - monachijski I | 1.14 kg (24.9%) | 78 %   | 16  |
| Grain | Weyermann - Abbey      | 0.34 kg (7.4%)  | 75 %   | 45  |
| Grain | Weyermann - Carabelge  | 0.23 kg (5%)    | 74 %   | 30  |

## Hops

| Use for             | Name            | Amount | Time   | Alpha acid |
|---------------------|-----------------|--------|--------|------------|
| Boil                | Warrior         | 10 g   | 60 min | 14.7 %     |
| Aroma (end of boil) | Styrian Golding | 50 g   | 15 min | 4 %        |
| Aroma (end of boil) | Simcoe          | 10 g   | 5 min  | 13.3 %     |

## Yeasts

| Name                              | Type | Form  | Amount | Laboratory      |
|-----------------------------------|------|-------|--------|-----------------|
| Mangrove Jack's M47 Belgian Abbey | Ale  | Slant | 130 ml | Mangrove Jack's |

## Extras

| Type        | Name                | Amount | Use for | Time  |
|-------------|---------------------|--------|---------|-------|
| Water Agent | gips                | 2 g    | Mash    | ---   |
| Water Agent | kwask mlekowy [ml]  | 3.86 g | Mash    | ---   |
| Water Agent | epsom               | 1.5 g  | Mash    | ---   |
| Water Agent | chlorek wapnia [ml] | 3.44 g | Mash    | ---   |
| Fining      | mech irlandzki      | 3 g    | Boil    | 5 min |