

BELGIAN PALE ALE #54

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **32**
- SRM **6.9**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **24.4 liter(s)**

Mash information

- Mash efficiency **81 %**
- Liquor-to-grist ratio **4.38 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 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 **5 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|--------|-----|
| Grain | Bestmalz - pale ale | 2.85 kg (62.5%) | 80.5 % | 6 |
| Grain | Bestmalz - monachijski I | 1.14 kg (25%) | 80 % | 16 |
| Grain | Weyermann - Abbey | 0.34 kg (7.5%) | 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 | 5.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M47 Belgian Abbey | Ale | Dry | 10 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|-------------|---------------------|--------|------|-------|
| Water Agent | gips | 3 g | Mash | --- |
| Water Agent | kwask mlekowy [ml] | 4.23 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 |