

jasne polskie 21.02

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **14**
- SRM **4.7**
- Style **Old Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 2.9 kg (42.6%) | 82 % | 4 |
| Grain | Viking Pale Ale malt | 3.6 kg (52.9%) | 80 % | 5 |
| Grain | Karmelowy Jasny 30EBC | 0.3 kg (4.4%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 10 % |
| Whirlpool | Lublin (Lubelski) | 15 g | 5 min | 4 % |
| Whirlpool | Marynka | 15 g | 5 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|---------|--------|------------|
| Safale S-04 | Ale | Culture | 1200 g | Safale |

Extras

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

| | | | | |
|-------------|----------------|-----|------|--------|
| Water Agent | chlorek wapnia | 4 g | Mash | 90 min |
|-------------|----------------|-----|------|--------|