

Przeniczne

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **14**
- SRM **4**
- Style **Weizen/Weissbier**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **73 C**, Time **45 min**
- Temp **78 C**, Time **10 min**
- Temp **100 C**, Time **60 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **73C**
- Keep mash **10 min** at **78C**
- Keep mash **60 min** at **100C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|----------------|-------|-----|
| Grain | Słód jęczmienny crisp pale ale | 3.5 kg (43.8%) | 83 % | 4.5 |
| Grain | Słód PSZENICZNY crisp 4.5 | 3.5 kg (43.8%) | 83 % | 4.5 |
| Grain | Płatki pszeniczne | 0.5 kg (6.3%) | 60 % | 3 |
| Grain | Płatki owsiane | 0.5 kg (6.3%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Mandarina Bavaria | 15 g | 10 min | 10 % |
| Boil | Mandarina Bavaria | 15 g | 50 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's M20 Bavarian Wheat | Wheat | Dry | 20 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|-------------------------------------|------------------|--------|---------|--------|
| Flavor | skórki mandaryny | 50 g | Boil | 30 min |
| Water Agent | Kwas cytrynowy | 20 g | Mash | 0 min |
| Water Agent | Kwas cytrynowy | 10 g | Mash | 0 min |
| Do zakwaszenia wody do poziomu 5 PH | | | | |