

bitter 2.0

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **38**
- SRM **6.2**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **34 liter(s)**
- Trub loss **5 %**
- Size with trub loss **35.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **43 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **0 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **75C**
- Sparge using **29.8 liter(s)** of **76C** water or to achieve **43 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 5 kg (75.8%) | 85 % | 7 |
| Grain | Caramunich® typ I | 0.5 kg (7.6%) | 73 % | 80 |
| Grain | Weyermann pszeniczny jasny | 0.5 kg (7.6%) | 80 % | 4 |
| Grain | Monachijski | 0.5 kg (7.6%) | 80 % | 16 |
| Grain | Biscuit Malt | 0.1 kg (1.5%) | 79 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | Chinook pl | 55 g | 60 min | 9 % |
| Boil | Cascade PL | 15 g | 15 min | 5.2 % |
| Boil | Styrian Golding | 5 g | 15 min | 3.6 % |
| Boil | Styrian Golding | 25 g | 5 min | 3.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 23 g | --- |