

4b # Spinel - Salzburger Vienna Lager - więcej sodu i chmielu

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **38**
- SRM **12.7**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36.7 liter(s)**
- Total mash volume **48.9 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **36.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **23.6 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Vienna | 5 kg (40.9%) | 80.5 % | 9 |
| Grain | BESTMALZ - Best Minich | 4 kg (32.7%) | 80.5 % | 16 |
| Grain | Viking Pale Ale malt | 3 kg (24.5%) | 80 % | 5 |
| Grain | Czekoladowy | 0.22 kg (1.8%) | 60 % | 788 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 45 g | 60 min | 15.5 % |
| Boil | Hallertau | 50 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------|--------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Liquid | 100 ml | Fermentum Mobile |