

GPA SH Mandarinina Bavaria

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **38**
- SRM **6.9**
- Style **American 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 **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.75 kg (95%) | 80 % | 5 |
| Grain | Strzegom Karmel 150 | 0.25 kg (5%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Mandarina Bavaria | 25 g | 60 min | 10 % |
| Boil | Mandarina Bavaria | 15 g | 20 min | 10 % |
| Aroma (end of boil) | Mandarina Bavaria | 10 g | 5 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |