

# 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