

## grodziskie 2.0 SH mandarina bavaria

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **26**
- SRM **4.2**
- Style **Grodziskie**

### Batch size

- Expected quantity of finished beer **25.7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.2 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12.1 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	4 kg (96.6%)	80 %	3
Adjunct	łuska orkiszowa	0.1 kg (2.4%)	1 %	0
Grain	Strzegom Karmel 600	0.04 kg (1%)	68 %	601

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	30 min	11 %
Whirlpool	Mandarina Bavaria	20 g	1 min	10 %
Dry Hop	Mandarina Bavaria	30 g	2 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Slant	1500 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	wirflock	2 g	Boil	5 min