

## HG test

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- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **32**
- SRM **3.7**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.8 liter(s)**
- Total mash volume **9 liter(s)**

### Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **6.8 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **19.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wewyermann - Smoked Malt	2.25 kg (100%)	81 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	10 g	40 min	10 %
Boil	Mosaic	10 g	20 min	10 %
Aroma (end of boil)	Mosaic	10 g	5 min	10 %
Aroma (end of boil)	Palisade	10 g	5 min	7.5 %
Dry Hop	Palisade	10 g	2 day(s)	7.5 %
Dry Hop	Palisade	10 g	1 day(s)	7.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	8.25 g	Safbrew

### Extras

Type	Name	Amount	Use for	Time
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Fining	Whirlock	2.25 g	Boil	10 min
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