

Grodzisz #3

- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **20**
- SRM **2.4**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **1 %**
- Size with trub loss **29.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **35.1 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

Steps

- Temp **40 C**, Time **30 min**
- Temp **52 C**, Time **40 min**
- Temp **70 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **30 min** at **40C**
- Keep mash **40 min** at **52C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **27.5 liter(s)** of **76C** water or to achieve **35.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Smoked Malt | 2.8 kg (73.7%) | 80 % | 4 |
| Grain | Barley, Torrefied | 1 kg (26.3%) | 79 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Tomyski | 30 g | 60 min | 4 % |
| Boil | Tomyski | 30 g | 15 min | 4 % |
| Boil | Tomyski | 40 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------|--------|---------|--------|
| Fining | whirlflock | 0.5 g | Boil | 10 min |