

grodziskie do zmiany

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **26**
- SRM **3.4**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **38 C**, Time **30 min**
- Temp **52 C**, Time **15 min**
- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **40.6C**
- Add grains
- Keep mash **30 min** at **38C**
- Keep mash **15 min** at **52C**
- Keep mash **15 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|------------|-------|-----|
| Grain | Pilzneński | 3 kg (50%) | 81 % | 4 |
| Grain | Grodziski pszeniczny wędzony dębem | 3 kg (50%) | 80 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |
| Boil | Puławski | 20 g | 30 min | 4.3 % |
| Boil | Magnum | 5 g | 10 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g | Boil | 10 min |