

Grodzie 3 exp

- Gravity **12.1 BLG**
- ABV ---
- IBU **44**
- SRM **5.8**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **1 %**
- Size with trub loss **15.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **18.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|---------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 3 kg (90.9%) | 80 % | 10 |
| Grain | Strzegom Wiedeński | 0.3 kg (9.1%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------|--------|--------|------------|
| Boil | Super Galena | 10 g | 30 min | 14.2 % |
| Boil | Super Galena | 10 g | 20 min | 14.2 % |
| Aroma (end of boil) | Super Galena | 10 g | 10 min | 14.2 % |
| Aroma (end of boil) | Citra | 15 g | 5 min | 12 % |
| Whirlpool | Citra | 15 g | 0 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------|-------|--------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Liquid | 60 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------|--------|-----------|----------|
| Flavor | Sok | 3000 g | Secondary | 2 day(s) |