

Grodziskie Wariacje I

- Gravity **8.1 BLG**
- ABV ---
- IBU **34**
- SRM **3.2**
- Style **Grodziskie**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.1 liter(s)**
- Total mash volume **10.8 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **70 C**, Time **30 min**
- Temp **75 C**, Time **1 min**

Mash step by step

- Heat up **8.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **1 min** at **75C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|----------------|-------|-----|
| Grain | Weyermann - Grodziski | 1.4 kg (51.9%) | 80 % | 4 |
| Grain | Weyermann - Smoked Malt | 1 kg (37%) | 81 % | 6 |
| Grain | Pilzneński | 0.3 kg (11.1%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Magnum | 17 g | 60 min | 11.8 % |
| Boil | Lublin (Lubelski) | 15 g | 20 min | 4 % |
| Aroma (end of boil) | Tradition | 15 g | 1 min | 4 % |

Extras

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