

## #33 Grodziskie

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **33**
- SRM **3**
- Style **Grodziskie**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7 liter(s)**
- Total mash volume **9 liter(s)**

### Steps

- Temp **65 C**, Time **20 min**
- Temp **69 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **20 min** at **65C**
- Keep mash **40 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount       | Yield | EBC |
|-------|-----------------------|--------------|-------|-----|
| Grain | Weyermann - Grodziski | 1.5 kg (75%) | 80 %  | 4   |
| Grain | Viking Pale Ale malt  | 0.5 kg (25%) | 80 %  | 5   |

### Hops

| Use for             | Name   | Amount | Time   | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil                | Magnum | 5 g    | 60 min | 12.9 %     |
| Boil                | Magnum | 5 g    | 30 min | 12.9 %     |
| Aroma (end of boil) | Magnum | 10 g   | 5 min  | 12.9 %     |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safbrew S-33 | Ale  | Slant | 100 ml | Safbrew    |