

## #134 Grodziskie

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **23**
- SRM **2.8**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **3 %**
- Size with trub loss **24.7 liter(s)**
- Boil time **67 min**
- Evaporation rate **14 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **6 liter(s) / kg**
- Mash size **24.6 liter(s)**
- Total mash volume **28.7 liter(s)**

### Steps

- Temp **67 C**, Time **37 min**
- Temp **72 C**, Time **25 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **24.6 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **37 min** at **67C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

| Type  | Name                               | Amount         | Yield | EBC |
|-------|------------------------------------|----------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 2.5 kg (61%)   | 80 %  | 3   |
| Grain | Słód Wędzony Steinbach             | 1.4 kg (34.1%) | 80 %  | 5   |
| Grain | Weyermann - Carapils               | 0.2 kg (4.9%)  | 78 %  | 4   |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | lunga PL | 7 g    | 55 min | 10 %       |
| Boil                | lunga PL | 10 g   | 30 min | 10 %       |
| Aroma (end of boil) | Izabela  | 25 g   | 6 min  | 7 %        |
| Aroma (end of boil) | lunga PL | 8 g    | 6 min  | 10 %       |

### Yeasts

| Name                  | Type | Form | Amount | Laboratory |
|-----------------------|------|------|--------|------------|
| Danstar - Windsor Ale | Ale  | Dry  | 11 g   | Danstar    |

## Extras

| Type   | Name                                   | Amount | Use for   | Time      |
|--------|--|--------|-----------|-----------|
| Fining | Whirlfloc                              | 2.5 g  | Boil      | 12 min    |
| Other  | A) Mix Brett<br>Lochristi i Trois Vrei | 5 g    | Secondary | 60 day(s) |
| Spice  | B) Kebab                               | 2 g    | Secondary | 14 day(s) |
| Spice  | B) Gyros                               | 2 g    | Secondary | 14 day(s) |
| Spice  | B) Czosnek<br>granulowany              | 1 g    | Secondary | 14 day(s) |
| Spice  | B) Papryka ostra                       | 0.5 g  | Secondary | 14 day(s) |
| Flavor | C) Suska sechlońska                    | 250 g  | Secondary | 14 day(s) |
| Herb   | C) Kaffir                              | 14 g   | Secondary | 14 day(s) |
| Herb   | C) Mięta pieprzowa                     | 3.2 g  | Secondary | 14 day(s) |
| Herb   | C) Lawenda                             | 2 g    | Secondary | 14 day(s) |
| Other  | D) NIC                                 | 0.1 g  | Bottling  | ---       |