

# Grodziskie

- Gravity **9 BLG**
- ABV ---
- IBU **27**
- SRM **2.9**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.4 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **66.3 C**, Time **45 min**
- Temp **71.2 C**, Time **15 min**
- Temp **80 C**, Time **1 min**

## Mash step by step

- Heat up **12.4 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **45 min** at **66.3C**
- Keep mash **15 min** at **71.2C**
- Keep mash **1 min** at **80C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

| Type  | Name                                | Amount          | Yield | EBC |
|-------|-------------------------------------|-----------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem  | 2.75 kg (77.5%) | 80 %  | 3   |
| Grain | Weyermann - Smoked Malt (czereśnia) | 0.8 kg (22.5%)  | 81 %  | 6   |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 11 g   | 50 min | 11.6 %     |
| Boil    | lunga | 11 g   | 40 min | 11.6 %     |

## Yeasts

| Name                | Type  | Form   | Amount | Laboratory       |
|---------------------|-------|--------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Liquid | 30 ml  | Fermentum Mobile |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 5 g    | Boil    | 15 min |