

# Grodziskie

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **24**
- SRM **2.4**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **40 min** at **72C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

| Type  | Name                                 | Amount     | Yield | EBC |
|-------|--------------------------------------|------------|-------|-----|
| Grain | Pszeniczny wędzony dębem (Viking)    | 2 kg (50%) | 80 %  | 3   |
| Grain | Pszeniczny wędzony dębem (Weyermann) | 2 kg (50%) | 80 %  | 3   |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | lunga   | 25 g   | 30 min | 11 %       |
| Aroma (end of boil) | Tomyski | 50 g   | 3 min  | 2.8 %      |
| Whirlpool           | Tomyski | 50 g   | 0 min  | 2.8 %      |

## Yeasts

| Name                         | Type  | Form   | Amount | Laboratory       |
|------------------------------|-------|--------|--------|------------------|
| /polowa/ FM51 Grodzie Dębowe | Wheat | Liquid | 100 ml | Fermentum Mobile |
| /polowa/ brett amalgamation  | Ale   | Slant  | 100 ml | Yeast Bay        |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|             |              |     |      |        |
|-------------|--------------|-----|------|--------|
| Water Agent | gips         | 4 g | Mash | 60 min |
| Water Agent | sól epsom    | 6 g | Mash | 60 min |
| Water Agent | sól kuchenna | 2 g | Mash | 60 min |
| Water Agent | kreda        | 8 g | Mash | 60 min |
| Fining      | whirflock    | 2 g | Boil | 5 min  |