

# Dubbel Grodziskie

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- Gravity **15.1 BLG**
- ABV ---
- IBU **35**
- SRM **12.4**
- Style **Grodziskie**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.9 liter(s)**

## Steps

- Temp **52 C**, Time **35 min**
- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **35 min** at **52C**
- Keep mash **60 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                                 | Amount         | Yield | EBC |
|-------|--------------------------------------|----------------|-------|-----|
| Grain | Weyermann - Pszeniczny wędzony dębem | 2.3 kg (38.5%) | 80 %  | 5   |
| Grain | Weyermann - Smoked Malt              | 2.3 kg (38.5%) | 80 %  | 6   |
| Grain | Pszeniczny                           | 0.5 kg (8.4%)  | 85 %  | 4   |
| Grain | Pilzneński                           | 0.5 kg (8.4%)  | 81 %  | 4   |
| Grain | Weyermann - Carawheat                | 0.3 kg (5%)    | 77 %  | 97  |
| Grain | Strzegom Karmel 600                  | 0.05 kg (0.8%) | 68 %  | 601 |
| Grain | Weyermann - Chocolate Wheat          | 0.02 kg (0.3%) | 74 %  | 788 |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Magnum            | 20 g   | 60 min | 11.8 %     |
| Boil    | Lublin (Lubelski) | 15 g   | 60 min | 5.1 %      |
| Boil    | Lublin (Lubelski) | 10 g   | 30 min | 5.1 %      |

|                     |                   |      |        |       |
|---------------------|-------------------|------|--------|-------|
| Boil                | Lublin (Lubelski) | 10 g | 10 min | 5.1 % |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g | 1 min  | 5.1 % |

### Yeasts

| Name                | Type  | Form  | Amount | Laboratory       |
|---------------------|-------|-------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Slant | 50 ml  | Fermentum Mobile |

### Extras

| Type   | Name     | Amount | Use for   | Time     |
|--------|----------|--------|-----------|----------|
| Fining | Żelatyna | 5 g    | Secondary | 7 day(s) |