

# Dark Grodziskie

- Gravity **7.6 BLG**
- ABV ---
- IBU **37**
- SRM **23**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

## Steps

- Temp **52 C**, Time **40 min**
- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **9.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **40 min** at **52C**
- Keep mash **60 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **24 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Grodziski	2 kg (62.7%)	80 %	5
Grain	Weyermann - Smoked Malt	0.7 kg (21.9%)	85 %	4
Grain	Weyermann - Carawheat	0.2 kg (6.3%)	75 %	125
Grain	Weyermann - Chocolate Wheat	0.25 kg (7.8%)	74 %	788
Grain	Strzegom Pszenica Palona	0.02 kg (0.6%)	70 %	1000
Grain	Strzegom Barwiący	0.02 kg (0.6%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	11.8 %
Boil	Marynka	17 g	40 min	8.9 %
Boil	Lomik	20 g	30 min	4.6 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
FM51 Grodzie Dębowe	Wheat	Slant	50 ml	Fermentum Mobile

### **Extras**

<b>Type</b>	<b>Name</b>	<b>Amount</b>	<b>Use for</b>	<b>Time</b>
Fining	Żelatyna	5 g	Secondary	10 day(s)