

# Gruby Magnat Wielkopolski

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **22**
- SRM **3.1**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **8 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **16.2 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **6 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **17.5 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **3.7 liter(s)** of **76C** water or to achieve **16.2 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount       | Yield | EBC |
|-------|-----------------------|--------------|-------|-----|
| Grain | Weyermann - Grodziski | 2 kg (80%)   | 80 %  | 4   |
| Grain | Pilzneński            | 0.5 kg (20%) | 81 %  | 4   |

## Hops

| Use for    | Name   | Amount | Time   | Alpha acid |
|------------|--------|--------|--------|------------|
| First Wort | Magnat | 8 g    | 60 min | 14.2 %     |

## Yeasts

| Name                | Type  | Form   | Amount | Laboratory       |
|---------------------|-------|--------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Liquid | 75 ml  | Fermentum Mobile |

## Extras

| Type  | Name                       | Amount | Use for | Time   |
|-------|----------------------------|--------|---------|--------|
| Spice | łuska ryżowa sterylizowana | 100 g  | Mash    | 90 min |