

MAMS

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **13**
- SRM **2.3**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **70 C**, Time **40 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|-------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 3 kg (100%) | 80 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Lomik | 15 g | 60 min | 3.8 % |
| Boil | Lomik | 15 g | 30 min | 3.8 % |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g | 0 min | 4 % |
| Whirlpool | Oktawia | 30 g | 0 min | 7.1 % |
| Dry Hop | Lublin (Lubelski) | 20 g | 3 day(s) | 4 % |
| Dry Hop | Oktawia | 20 g | 3 day(s) | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|------|--------|--------|------------|
| FM53 Voss kveik | Ale | Liquid | 500 ml | FM |