

# Witbier dla Magdaleny

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **13**
- SRM **2.8**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **8.7 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type    | Name                  | Amount         | Yield  | EBC |
|---------|-----------------------|----------------|--------|-----|
| Grain   | Heidelberg            | 2 kg (45.5%)   | 80.5 % | 2.5 |
| Adjunct | Pszenica niesłodowana | 1.5 kg (34.1%) | 75 %   | 3   |
| Grain   | Pszeniczny            | 0.5 kg (11.4%) | 85 %   | 4   |
| Grain   | Płatki owsiane        | 0.2 kg (4.5%)  | 85 %   | 3   |
| Grain   | Płatki pszeniczne     | 0.2 kg (4.5%)  | 85 %   | 3   |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski) | 30 g   | 60 min | 4 %        |

## Yeasts

| Name                        | Type | Form   | Amount | Laboratory |
|-----------------------------|------|--------|--------|------------|
| Wyeast 3944 Belgian Witbier | Ale  | Liquid | 125 ml | Wyeast     |

## Extras

| Type  | Name     | Amount | Use for | Time  |
|-------|----------|--------|---------|-------|
| Spice | Kolendra | 15 g   | Boil    | 1 min |
| Spice | Curacao  | 15 g   | Boil    | 1 min |
| Spice | Rumianek | 15 g   | Boil    | 1 min |

### Notes

- Pszenice i płatki kleikować w 6 L wody  
*Nov 2, 2017, 7:53 PM*