

Wieleozbożowe

- Gravity **13.1 BLG**
- ABV ---
- IBU **28**
- SRM **6.4**
- Style **Belgian Pale Ale**

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 **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **44 C**, Time **10 min**
- Temp **54 C**, Time **10 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **47C**
- Add grains
- Keep mash **10 min** at **44C**
- Keep mash **10 min** at **54C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------|----------------|-------|-----|
| Grain | Pszeniczny | 1.3 kg (28.9%) | 85 % | 4 |
| Grain | Pilzneński | 0.7 kg (15.6%) | 81 % | 4 |
| Grain | Munich Malt | 1 kg (22.2%) | 80 % | 18 |
| Grain | Rye Malt | 0.5 kg (11.1%) | 63 % | 10 |
| Grain | Oats, Malted | 0.5 kg (11.1%) | 80 % | 2 |
| Grain | spelt malt | 0.5 kg (11.1%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Challenger | 20 g | 60 min | 7 % |
| Boil | Saaz (Czech Republic) | 20 g | 60 min | 2.5 % |
| Boil | Sybilla | 15 g | 15 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

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|--------------------|-------|-------|--------|------------------|
| FM20 Białe Walonki | Wheat | Slant | 500 ml | Fermentum Mobile |
|--------------------|-------|-------|--------|------------------|