

## dzielone na 2

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **28**
- SRM **3**
- Style **Witbier**

### 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 **27.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**
- Temp **71 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **15 min** at **71C**
- Keep mash **5 min** at **78C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield  | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Briess - Pilsen Malt | 3 kg (57.7%)   | 80.5 % | 2   |
| Grain | Pszeniczny           | 1 kg (19.2%)   | 85 %   | 4   |
| Grain | Płatki orkiszowe     | 0.4 kg (7.7%)  | 60 %   | 4   |
| Grain | Płatki owsiane       | 0.8 kg (15.4%) | 60 %   | 3   |

### Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Marynka | 25 g   | 60 min | 10 %       |
| Aroma (end of boil) | Marynka | 10 g   | 5 min  | 10 %       |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale  | Dry  | 11 g   | Fermentis  |

### Extras

| Type   | Name     | Amount | Use for | Time   |
|--------|----------|--------|---------|--------|
| Flavor | kolendra | 20 g   | Boil    | 15 min |

|        |                |      |      |        |
|--------|----------------|------|------|--------|
| Flavor | skorka curacao | 15 g | Boil | 15 min |
|--------|----------------|------|------|--------|

## Notes

- 1 tydzień burzliwej  
2 tygodnie cichej ,warka podzielona po 10L jedna czysta druga z dodatkiem pulpy z mango  
*Aug 4, 2022, 7:02 PM*