

# witbire

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **17**
- SRM **3.2**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **5 %/h**
- Boil size **34.9 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **18.8 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **70 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **34.9 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount       | Yield | EBC |
|-------|-----------------------|--------------|-------|-----|
| Grain | Pilzneński            | 3 kg (48%)   | 81 %  | 4   |
| Grain | Pszenica niesłodowana | 2.5 kg (40%) | 75 %  | 3   |
| Grain | Pszeniczny            | 0.5 kg (8%)  | 85 %  | 4   |
| Grain | słód zakwaszający     | 0.25 kg (4%) | 85 %  | 4   |

## Hops

| Use for | Name                 | Amount | Time   | Alpha acid |
|---------|----------------------|--------|--------|------------|
| Boil    | Hallertau mittelfruh | 30 g   | 60 min | 4.9 %      |
| Boil    | Hallertau mittelfruh | 20 g   | 30 min | 4.9 %      |

## Yeasts

| Name               | Type  | Form   | Amount  | Laboratory       |
|--------------------|-------|--------|---------|------------------|
| FM20 Białe Walonki | Wheat | Liquid | 1000 ml | Fermentum Mobile |

## Extras

| Type  | Name    | Amount | Use for | Time  |
|-------|---------|--------|---------|-------|
| Spice | curasao | 40 g   | Boil    | 5 min |

|       |          |      |      |       |
|-------|----------|------|------|-------|
| Spice | kolendra | 20 g | Boil | 5 min |
|-------|----------|------|------|-------|

## Notes

- do zacieru dodane 0,5kg łuski z gryki uprzednio moczonej we wrzątku dodane na mash-out, pszenica niesłodowana kleikowana dodana po przerwie białkowej (50C),  
*Mar 28, 2017, 9:28 PM*