

#? Witbier

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **17**
- SRM **3.3**
- Style **Witbier**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **10 min**
- Temp **68 C**, Time **10 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **10 min** at **68C**
- Keep mash **5 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 3 kg (53.6%) | 80 % | 4 |
| Grain | Pszenica niesłodowana | 2 kg (35.7%) | 70 % | 3 |
| Grain | płatki owsiane | 0.4 kg (7.1%) | 65 % | 3 |
| Sugar | Cukier | 0.2 kg (3.6%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------|--------|--------|------------|
| Boil | Zula | 20 g | 60 min | 7 % |
| Aroma (end of boil) | Zula | 20 g | 5 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's - Belgian Wit M21 | Wheat | Dry | 10.5 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|-------|----------------------------|--------|---------|--------|
| Spice | kolendra kamis | 10 g | Boil | 15 min |
| Spice | skórka gorzkiej pomarańczy | 15 g | Boil | 15 min |
| Spice | kolendra kamis | 10 g | Boil | 5 min |
| Spice | skórka gorzkiej pomarańczy | 15 g | Boil | 5 min |