

American WITBIER

- Gravity **11.7 BLG**
- ABV ---
- IBU **24**
- SRM **4.2**
- Style **Witbier**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 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 **10 min**

Mash step by step

- Heat up **15.3 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 **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3 kg (58.8%) | 80 % | 3.5 |
| Grain | Strzegom Pszeniczny | 0.7 kg (13.7%) | 81 % | 6 |
| Grain | Pszenica niesłodowana | 1 kg (19.6%) | 75 % | 3 |
| Grain | słód owsiany | 0.4 kg (7.8%) | 79 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Cascade | 15 g | 60 min | 7.7 % |
| Boil | Cascade | 13 g | 10 min | 7.7 % |
| Boil | Citra | 13 g | 10 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------|-------|------|--------|-----------------|
| Mangrove Jack's M21 | Wheat | Dry | 10 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|-------|------------------------------|--------|---------|--------|
| Spice | Kolendra | 20 g | Boil | 10 min |
| Spice | Curacao | 15 g | Boil | 10 min |
| Spice | skórki słodkiej pomarańczy | 15 g | Boil | 10 min |
| Spice | skórki pomarańczy bergamotki | 15 g | Boil | 10 min |