

Magnum + X09326 2020 ver 1.0

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **53**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **18 %**
- Size with trub loss **13 liter(s)**
- Boil time **60 min**
- Evaporation rate **19 %/h**
- Boil size **18 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **18 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|---------------|-------|-----|
| Grain | Simpsons - Golden Promise | 3 kg (93.8%) | 81 % | 4 |
| Grain | Weyermann - Zakwaszający | 0.2 kg (6.3%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------------------|--------|--------|------------|
| Boil | Magnum (2020 - PL) | 25 g | 60 min | 12.7 % |
| Whirlpool | X09326 (2020 - USA) | 50 g | 1 min | 4.8 % |

Hop stand 20 min w 80C.

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| Lallemand - LalBrew Voss Kveik | Ale | Slant | 200 ml | Lallemand |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------|--------|---------|-------|
| Fining | Whirlflock | 1 g | Boil | 5 min |