

APA SH Zula z trawą cytrynową

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **15.6 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **12.9 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **10.1 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Strzegom Pilzneński | 1 kg (35.7%) | 80 % | 4 |
| Grain | Viking Pale Ale malt | 0.5 kg (17.9%) | 80 % | 5 |
| Grain | Pszeniczny | 0.5 kg (17.9%) | 85 % | 4 |
| Grain | Wheat, Flaked | 0.5 kg (17.9%) | 77 % | 4 |
| Grain | Carahell | 0.25 kg (8.9%) | 77 % | 26 |
| Grain | Acid Malt | 0.05 kg (1.8%) | 58.7 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------|--------|----------|------------|
| Boil | Zula | 20 g | 15 min | 13.3 % |
| Aroma (end of boil) | Zula | 20 g | 0 min | 13.3 % |
| Dry Hop | Zula | 60 g | 5 day(s) | 13.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------|
| FM52 Amerykański Sen | Ale | Liquid | 30 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|----------|--------|
| Spice | Trawa cytrynowa | 10 g | Boil | 10 min |
| Water Agent | gips piwowarski | 2 g | Boil | 60 min |
| Other | Witamina C | 2 g | Bottling | --- |