

ANGIELSKIE ALE 2020

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **34**
- SRM **6.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Vienna | 1 kg (22.7%) | 80.5 % | 9 |
| Grain | BESTMALZ - Bestt Pale Ale | 3.2 kg (72.7%) | 80.5 % | 6 |
| Grain | Strzegom Karmel 150 | 0.2 kg (4.5%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |
| Aroma (end of boil) | East Kent Goldings | 25 g | 10 min | 5.1 % |
| Aroma (end of boil) | Cascade CN | 25 g | 10 min | 7.1 % |