

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 %