

# Angol Specjalny

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **40**
- SRM **8.8**
- 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 **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.1 kg (83.7%)	80 %	6
Grain	Strzegom Monachijski typ I	0.4 kg (8.2%)	79 %	16
Grain	Caramel/Crystal Malt - 120L	0.4 kg (8.2%)	72 %	160

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	15 g	60 min	10.5 %
Boil	Target	15 g	30 min	10.5 %
Boil	Target	30 g	10 min	10.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	30 ml	Fermentum Mobile