

# union jack

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **69**
- SRM **7**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **36.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	6.88 kg (85.9%)	80 %	7
Grain	Monachijski	0.48 kg (6%)	80 %	16
Grain	Cara Blonde - Castle Malting	0.4 kg (5%)	78 %	20
Grain	Strzegom Karmel 150	0.25 kg (3.1%)	75 %	100

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Magnum	40 g	60 min	13.5 %
Boil	Cascade	40 g	30 min	7.1 %
Aroma (end of boil)	Centennial	40 g	10 min	10.1 %
Whirlpool	Cascade	45 g	0 min	7.1 %
Whirlpool	Centennial	45 g	0 min	10.1 %
Dry Hop	Cascade	45 g	2 day(s)	6 %
Dry Hop	Centennial	65 g	2 day(s)	10.1 %