

# australijskie pale ale LD

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **50**
- SRM **6.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **77 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **17.4 liter(s)**

## Steps

- Temp **53 C**, Time **20 min**
- Temp **63 C**, Time **20 min**
- Temp **74 C**, Time **30 min**

## Mash step by step

- Heat up **13 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **20 min** at **53C**
- Keep mash **20 min** at **63C**
- Keep mash **30 min** at **74C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (92%)	80 %	5
Grain	Słód Caramunich Typ II Weyermann	0.25 kg (5.7%)	73 %	120
Grain	Karmelowy Jasny 30EBC	0.1 kg (2.3%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Ella (AUS)	30 g	30 min	14.6 %
Aroma (end of boil)	Galaxy	30 g	5 min	15 %
Dry Hop	Cascade	40 g	7 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
LIBERTY BELL ALE M36 Mangrove Jack's	Ale	Dry	10 g	mangrove