

KPAK Project Scope

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Managing ordering needs using EOQ and MRP:

- 32 different raw products
 - 8 different suppliers
- 32 unique preprinted bags
- 3 different sized boxes

Benefits:

- More orders out on time and in full
 - Happy customer
- Less waste due to product expiration
 - Happy owner
- Better inventory transparency
 - Happy production manager

Economic Order Quantity – Bulk product

$$EOQ = \sqrt{\frac{2 \times S \times D}{H}}$$

D = pallet demand per year

S = order cost + freight scheduling cost + hassle cost

H = pallet real estate opportunity cost + [cost of one pallet x (i + w)]

i = interest rate %

w = wasted or expired product %

Sugar free saltwater taffy

D = 18.46 pallets / year

S = \$ 20 + \$20 + \$20 = \$60

H = \$180 + [(\$2 x 1800) x (2% + 7%)] = \$432

EOQ_{sugar free taffy} = 2.26 pallets

Round up to 3 pallets @ 1800 pounds / pallet = **5400 lbs**

