

ENCLOSING OPEN BALCONIES?

– can you afford not to?

*Read the results
of Ramböll's
report*

CAN YOU AFFORD NOT TO INSTALL GLAZED BALCONIES FROM BALCO?

According to Ramböll*, Scandinavia's leading construction consultants, there are a whole host of reasons why you should invest in glazed balconies from Balco as an alternative to the usual balcony and concrete refurbishment.

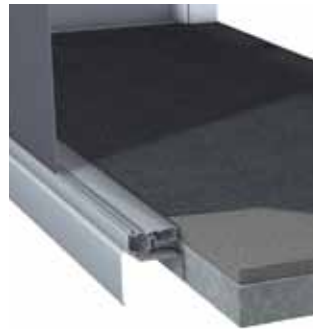
1. LESS CORROSION

A combination of oxidation, moisture and the pH value in the concrete leads the steel reinforcement in the balcony floor to corrode. This corrosion occurs both earlier and more quickly in an unprotected and open balcony. Glazing in the balcony keeps out a lot of moisture/water. This reduction in moisture causes the balcony to dry out, which in turn almost completely halts the corrosion process. A reduction in moisture levels in the concrete from 95% to 80% slashes the pace of corrosion by up to 90%! Since Balco's glazing system is also mounted on the outside edge of the floor module, the concrete's exposure to moisture is limited even more effectively.

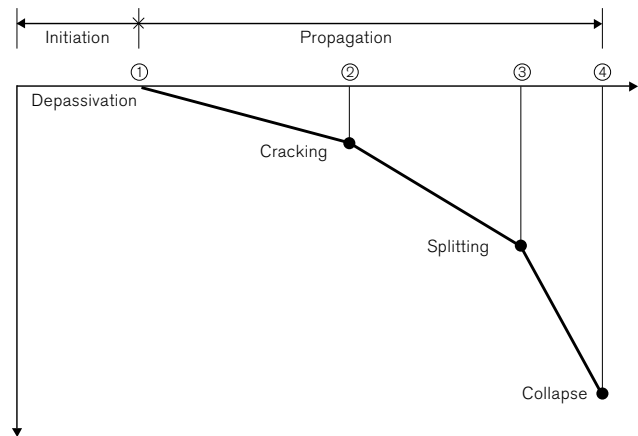
In all, adding glazing from Balco can extend the life of a concrete balcony floor by up to 50 years, compared with an unprotected floor, as illustrated in these two tables.

2. THE RISK OF FROST DAMAGE IS ELIMINATED

Glazing in the balcony and thus reducing exposure to moisture also means that the balcony's interior climate improves and the air temperature rises. This lowers surface condensation on both the concrete floor and the walls, which eliminates the risk of frost damage.



Balco's glazing system is mounted on the outside edge of the floor module, protecting the concrete from moisture.



Corrosion model after Tuutti, 1982

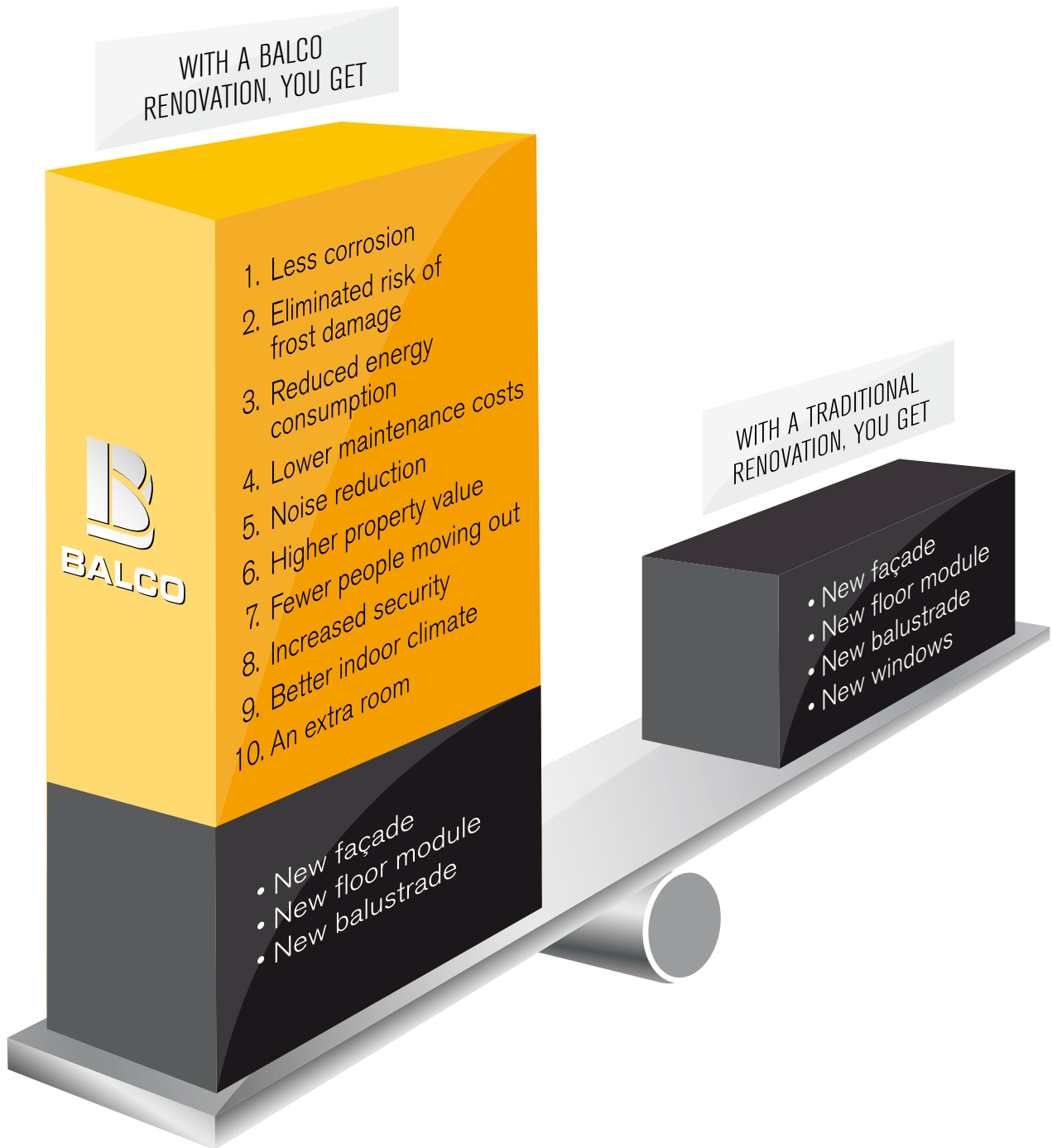
Balcony	Concrete's average moisture content RF (%)	Initiation phase (years)	Propagation phase (years)	Life (years)
Unprotected	> 90	30	18	48
Protected	< 80	30	68	98
Difference	> 10	0	50	50

The table shows the impact of glazing on the balcony floor's propagation phase.

*The above is based on Ramböll's report "Balco, tekniska studier av balkongglasningar – Inverkan på karbonatisering och armeringskorrosion" (Balco, technical studies of balcony glazing – Impact on carbonation and reinforcement corrosion) from 30.08.2010.

COMPARE US WITH OTHERS

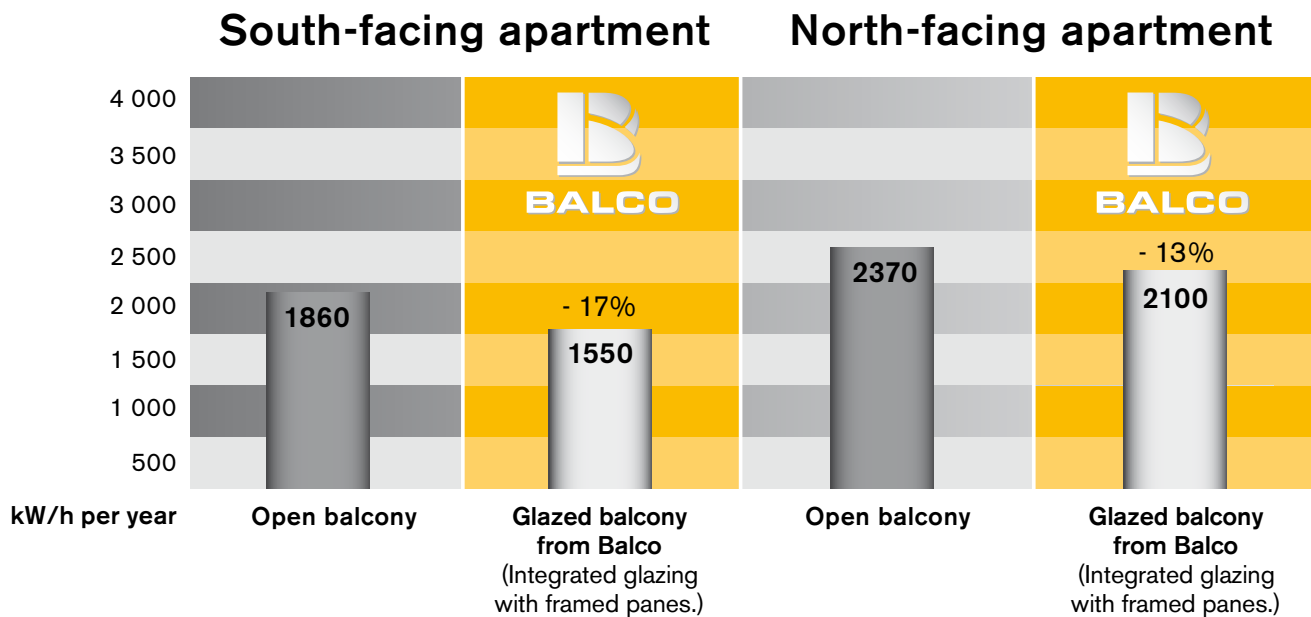
Our unique balcony solutions provide a cost-effective alternative to traditional façade renovation and supplementary insulation – an alternative that also cuts the need for future maintenance, reduces noise and makes the living environment more attractive.



3. REDUCED ENERGY CONSUMPTION

Balcony glazing acts as a thermal barrier, since it creates a column of air between the glazing and the façade. The effect is equivalent to around 50mm of traditional supplementary insulation. In addition, the input air is warmed before it enters the apartment. When Ramböll's engineers took measurements at properties

where the glazing covered 2/3 of the façade's area, the results showed energy savings of almost 20%. This outcome is also supported by a similar study carried out by Tampere University of Technology in Finland. It is also worth noting that Ramböll's report did not include our new energy solution – Balco Climate – which adds to the energy savings.



Ramböll's report shows that covering at least 2/3 of a property's façade with glazed balconies from Balco (integrated glazing with framed panes) can generate energy savings of almost 20%. The above values are approximate.

4. LOWER MAINTENANCE COSTS

Ramböll's study shows that a glazed balcony lasts 50 years longer than the equivalent open balcony. This is chiefly due to reduced corrosion and the elimination of frost damage in the concrete, see points 1 and 2. The glazed balcony also provides effective protection for the façade and windows against rain, snow and wind. This cuts the need for future investment in renovating the façade and windows inside the balcony.

5. NOISE REDUCTION

Integrated glazing with framed panes cuts noise levels considerably. The ear perceives a drop of 10 dB as a halving of the noise level. Ramböll's study and previous measurements show that an integrated glazing solution from Balco cuts noise by up to 20 dB.

THERE ARE EVEN MORE POSITIVE EFFECTS

Ramböll's report* shows a range of positive effects that suggest investing in integrated balcony glazing solutions from Balco makes perfect financial sense. With our many years of experience, we are able to add to that list of benefits:

6. HIGHER PROPERTY VALUE

Glazed balconies make the property more attractive and the apartments easier to rent out. This helps to boost the market value, potentially giving a good return on the investment in the long term.

7. FEWER PEOPLE MOVE OUT

The glazed balconies keep residents happier, reducing their desire to move.

8. INCREASED SECURITY

With tenants spending lots of time on their glazed balconies, the grounds around the property come under greater surveillance, which causes a drop in vandalism.

9. BETTER INDOOR CLIMATE

The windows and air in the balcony act as insulation, meaning that input air is warmed up before it enters the apartment. The effect is a better thermal climate indoors.



10. AN EXTRA SPACE

A glazed balcony provides more than a lively façade and an extra space. It also extends the summer and makes winter shorter. Making the space more frequently useable for residents

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