

Preparation for pour



APPLY MOULD OIL THINLY AND EVENLY.



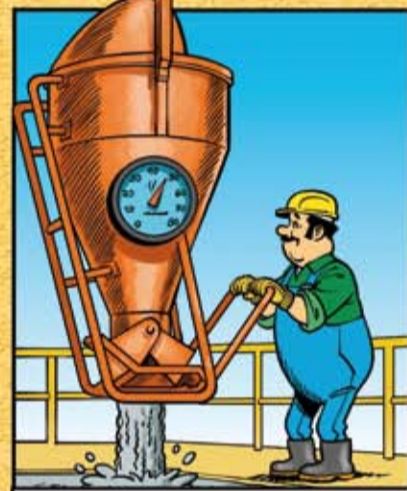
CLEAN OUT THE FORMS WITH A MAGNET AND WATER.



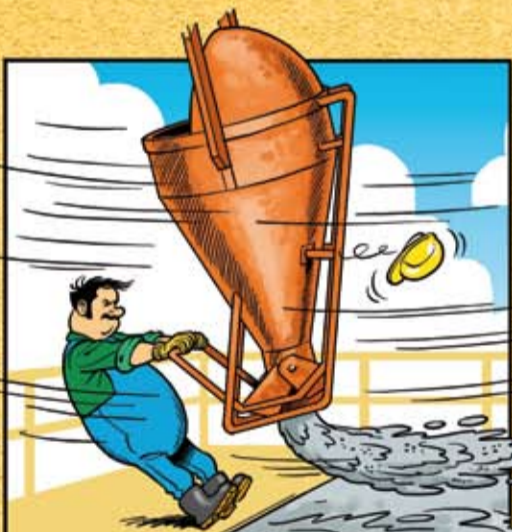
REMOVE ANY LITTER FROM THE FORMWORK.



STICK TO THE PLAN.



TAKE CARE WITH THE POURING RATE.



BEAR IN MIND THE WEATHER CONDITIONS.



ORDER CONCRETE IN GOOD TIME AND AGREE THE RATE OF DELIVERY.



GOOD PLANNING AVOIDS DELAYS.



CONCRETE QUALITY COMES FROM TEAMWORK

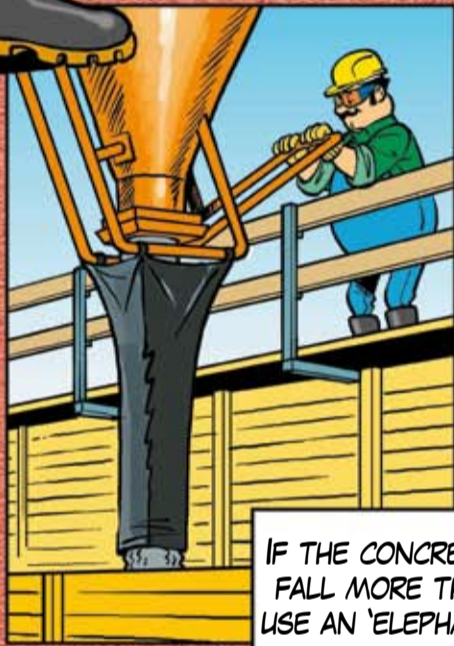
Placing concrete



AVOID SEGREGATION. DO NOT ALLOW CONCRETE TO FALL FROM TOO GREAT A HEIGHT.



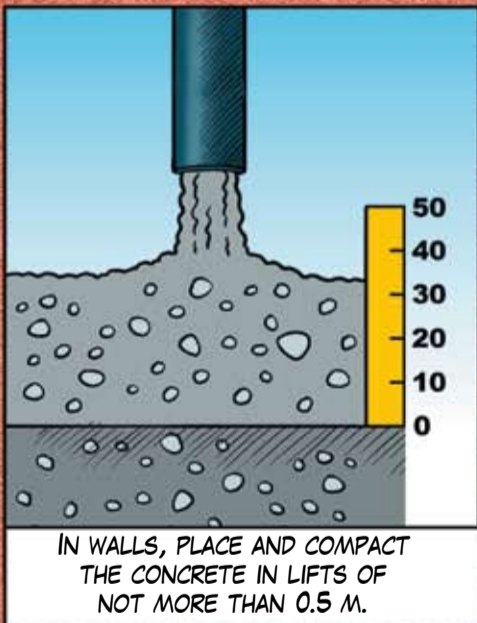
PLACING IN EXACTLY THE RIGHT PLACE AVOIDS THE NEED TO MOVE THE CONCRETE.



IF THE CONCRETE HAS TO FALL MORE THAN 1.5 M, USE AN 'ELEPHANT TRUNK' ATTACHMENT.



IF IT IS NECESSARY TO MOVE CONCRETE, USE A SHOVEL OR A RAKE, NOT THE POKER VIBRATOR.



IN WALLS, PLACE AND COMPACT THE CONCRETE IN LIFTS OF NOT MORE THAN 0.5 M.



MAKE SURE WORKERS OPERATE FROM A STABLE PLATFORM AND USE PERSONAL PROTECTIVE EQUIPMENT.



BEST RESULTS COME FROM FOLLOWING THE RULES.



CONCRETE QUALITY COMES FROM TEAMWORK

Compacting concrete

USE A POKER WITH THE RIGHT DIAMETER AND FREQUENCY.

ALWAYS HAVE A SPARE POKER AVAILABLE.

PERIOD OF VIBRATION SHOULD BE NOT TOO SHORT AND CERTAINLY NOT TOO LONG.

AVOID CONTACT WITH REINFORCEMENT OR FORMWORK.

MAKE SURE WORKERS OPERATE FROM A STABLE PLATFORM AND USE PERSONAL PROTECTIVE EQUIPMENT.

WHEN COMPACTING A NEW LAYER, INSERT POKER 10 CM INTO PREVIOUS ONE TO ENSURE GOOD INTERMIXING.

CHECK FORMWORK AND JOINTS.

ALLOW THE CONCRETE TO SETTLE FULLY.

RELEASE OF AIR SHOULD LOOK LIKE 'BOILING'.

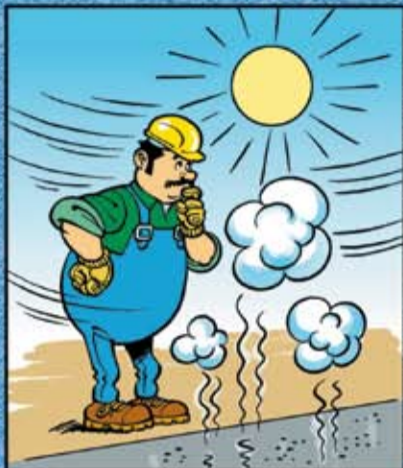
WHEN THE SURFACE GLAZES, COMPACTION IS ENOUGH.

WELL-VIBRATED CONCRETE IS A SIGN OF GOOD WORKMANSHIP.



CONCRETE QUALITY COMES FROM TEAMWORK

Curing concrete



DECIDE AHEAD WHAT THE TIME AND METHOD OF CURING WILL BE.



TOO LONG A CURING PERIOD IS BETTER THAN TOO SHORT.



BEST CURING METHOD IS TO LEAVE THE FORMWORK IN PLACE.



PLACE MATS OR SHEETS WITH ENOUGH OVERLAP, MAKE SURE THE EDGES ARE COVERED, AND WEIGHT THE EDGES DOWN AGAINST WIND.



IF USING A CURING COMPOUND, APPLY EVENLY AND REPEAT IF NECESSARY.

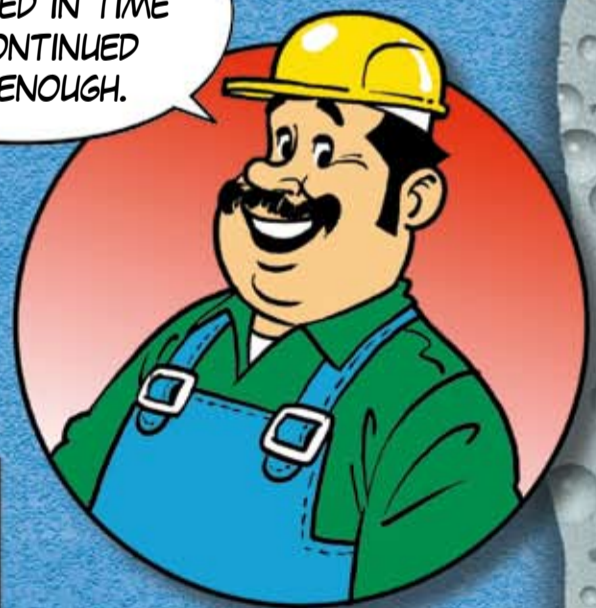


IF PAINT OR OTHER LAYER IS TO BE APPLIED, A SPECIAL CURING COMPOUND IS NECESSARY.



IF SPRAYING WITH WATER, ONLY BEGIN WHEN THE CONCRETE IS HARD ENOUGH. THEN KEEP THE CONCRETE WET FOR THE WHOLE CURING PERIOD.

CURING IS ONLY EFFECTIVE IF STARTED IN TIME AND CONTINUED LONG ENOUGH.




CONCRETE QUALITY COMES FROM TEAMWORK

Cracking of concrete

THERE ARE THREE KINDS OF CRACKS IN YOUNG CONCRETE.



Plastic shrinkage cracking

CAUSE



PLASTIC SHRINKAGE CRACKS ARE CAUSED BY TOO-RAPID EVAPORATION OF SURFACE WATER.


PREVENTION

PREVENT BY APPLICATION OF CURING COMPOUND. OR PREVENT BY KEEPING THE CONCRETE WET AND PROTECTED BY SPECIAL MATS OR SHEETS.




Thermal cracking

CAUSE



MAY RESULT WHEN THE CONCRETE TEMPERATURE IS HIGHER THAN AMBIENT.


PREVENTION

LIMIT ANY TEMPERATURE DIFFERENTIAL BY INSULATION. LEAVE FORMWORK IN PLACE AS LONG AS POSSIBLE. CUT CONTRACTION JOINTS AS SOON AS POSSIBLE.




Plastic settlement cracking

CAUSE



APPEARS BY THE SETTLEMENT OF CONCRETE IN HIGH WALLS AND COLUMNS. IN A SLAB, MAY BE RECOGNISED BY IT FOLLOWING THE PATTERN OF REINFORCEMENT.

PREVENTION

IF CASTING HIGH ELEMENTS, POUR IN LAYERS. COMPACT THE CONCRETE WITHIN ONE HOUR OF PLACING. TRY TO APPLY COMPACTION EVENLY. IF PLASTIC CRACKING APPEARS, TROWEL THE SURFACE TO CLOSE THE CRACKS AND CONTINUE CURING.



CONCRETE QUALITY COMES FROM TEAMWORK

Cold weather concreting

WEATHER CONDITIONS	AVERAGE TEMPERATURE OVER 24 HOURS	RECOMMENDATION
1	<p>☀️ 4° C or higher</p> <p>☾ Not less than -1° C. See condition 2</p>	<p>NO TROUBLE. CONTINUE WORKING.</p>
2	<p>☀️ 0 - 4° C</p> <p>☾ Not less than -2° C. If windy, see condition 3</p>	<p>COVER THE CONCRETE.</p>
3	<p>☀️ 0 - 4° C</p> <p>☾ Less than -2° C.</p>	<p>USE HEATED CONCRETE; OR HEAT THE SPACE BETWEEN CONCRETE AND COVER; OR USE RAPID-HARDENING CEMENT; OR REDUCE THE WATER/CEMENT RATIO.</p>
4	<p>☀️ Less than 0° C</p> <p>☾ Not less than -5° C</p>	<p>ENSURE THAT THE TEMPERATURE OF THE CONCRETE IS NOT LESS THAN 4° C.</p>
5	<p>☀️ Less than 0° C</p> <p>☾ -5° C to -10° C</p>	<p>USE STEAM OR HOT AIR OR INFRA-RED HEATING TO KEEP THE TEMPERATURE AT LEAST 4° C.</p>
6	<p>☀️ Less than 0° C</p> <p>☾ Less than -10° C</p>	<p>PLACE CONCRETE ONLY IF WORK IS FULLY ENCLOSED SO THAT HEAT CANNOT ESCAPE AND TEMPERATURE IS KEPT ABOVE 8° C.</p>
<p>LISTEN TO THE WEATHER FORECAST PHONE, FAX, WEBSITES.</p>		<p>DO NOT CAST AGAINST SURFACES LESS THAN -1° C. REMOVE SNOW AND ICE.</p>



CONCRETE QUALITY COMES FROM TEAMWORK

Hot weather concreting



CONCRETE QUALITY COMES FROM TEAMWORK